



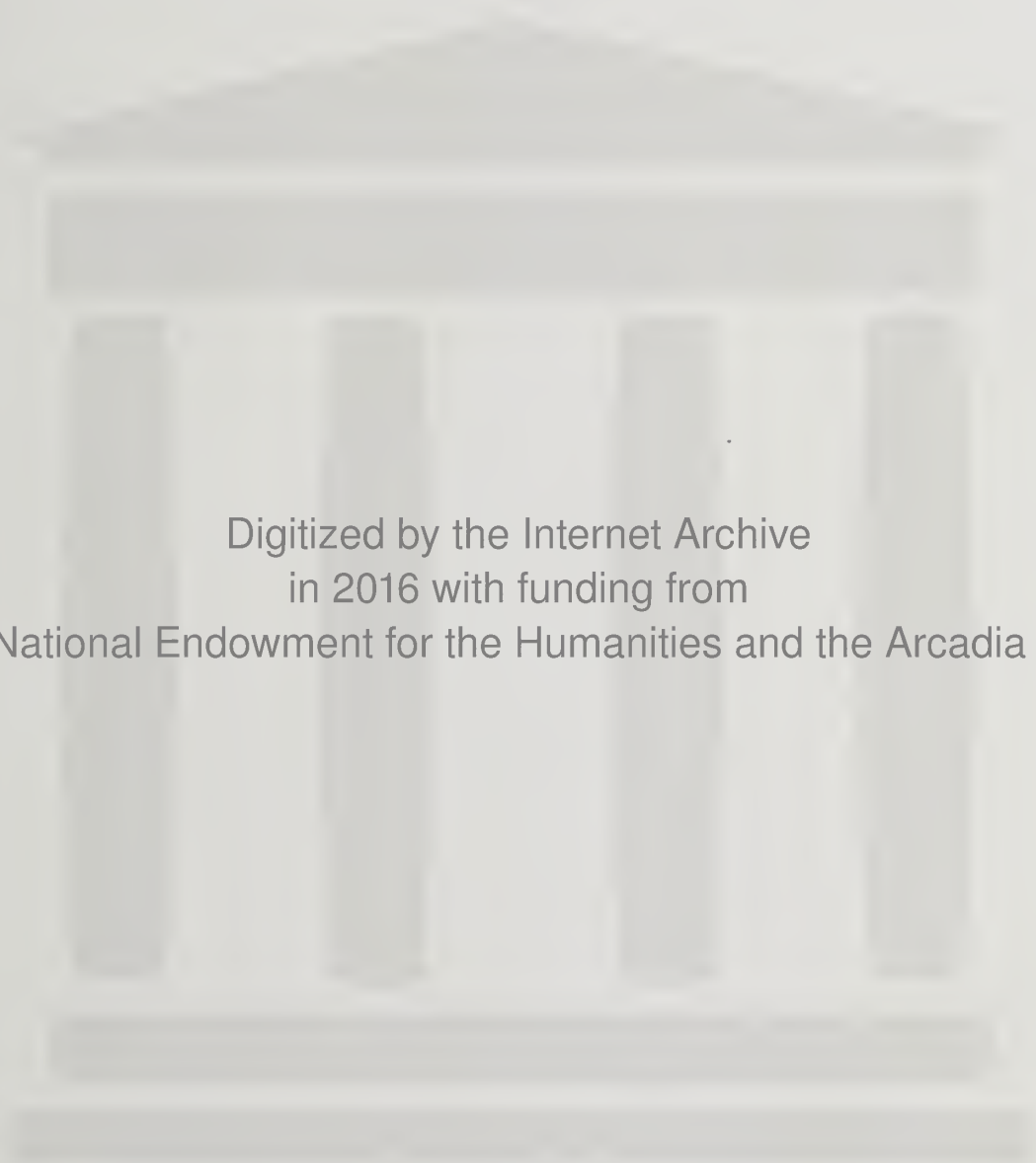
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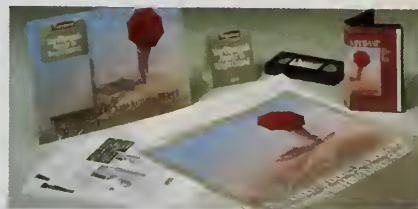
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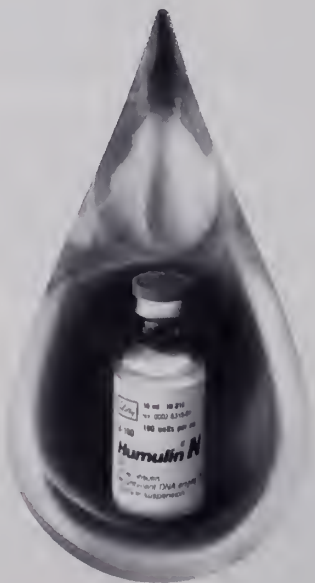
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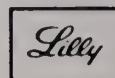


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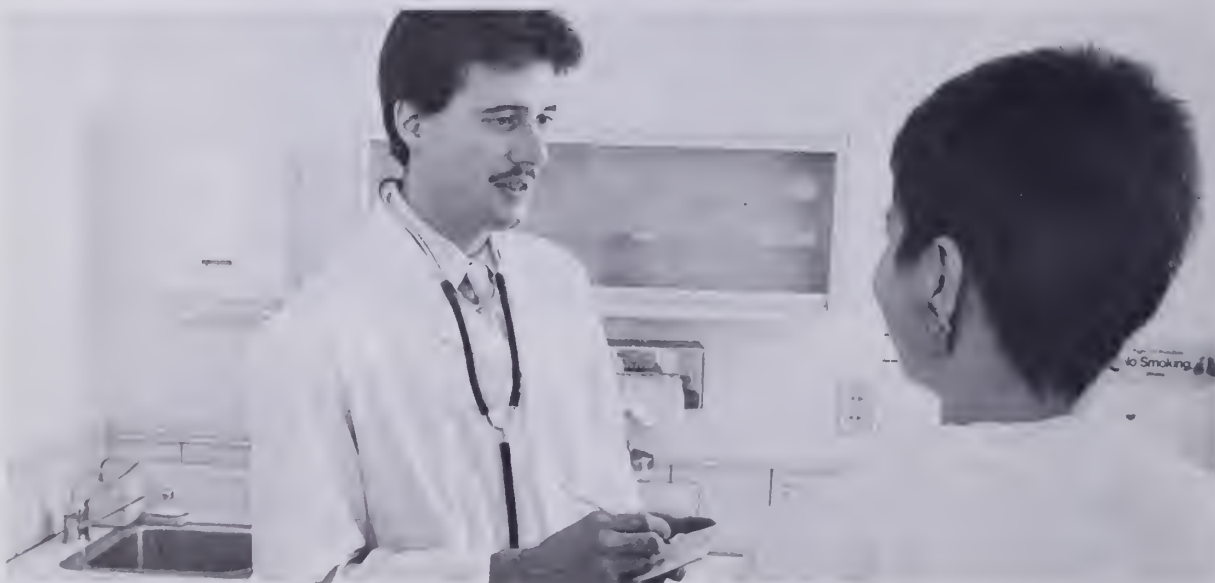
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The JOURNAL (ISSN 0030-1876) (USPS 285-000) is the official publication of the Oklahoma State Medical Association and is published monthly under the direction of the OSMA Board of Trustees. Editorial office is at 601 Northwest Expressway, Oklahoma City, OK 73118. Second class postage paid at Oklahoma City, OK 73125.

Subscription to the JOURNAL is included in membership dues. All other subscriptions are \$30 per year. Single issues are \$3 per copy, pre-paid, subject to availability.

The JOURNAL does not assume responsibility for opinions expressed by the authors. Products and services advertised in the JOURNAL are neither endorsed nor guaranteed by the Oklahoma State Medical Association.

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# JOURNAL

OKLAHOMA STATE MEDICAL ASSOCIATION

JANUARY 1990

VOL. 83, NO. 1

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## On the Epidemiology of Child Abuse

Children have been considered to be chattel for most of human history, and yet no human tribe ever prospers unless the children receive love and nurturing during their growth and development. Unloved and unnurtured children fail to thrive and to mature into functional and reproductively successful adults, and this biological truth has been instinctively understood by most members of most human tribes since the dawn of time. Successful human families have always expressed an innate biological cossetting of children, so that the children are experienced as an incarnate extension of the parents, or as the poet says: "flesh of my flesh."

Several modern medical studies on the growth and development of the psyche and soma of humans have confirmed the biological necessity for warmth and nurturing as a prerequisite for functional maturation. But despite the scientific confirmation of our intuitive tribal knowledge that children need love, our society has had an epidemic of increased reports of child abuse. No one surely knows whether child abuse frequency is increasing, or only the reporting is increasing, but in either case we must conclude that our social response to the problem has been inept.

Sadly, the physical abuse of children, the neglect of children through failure to provide life's essentials, and the sexual exploitation of children is distressingly frequent in our society. Any of these acts may produce a psychologically damaged adult who is interdicted from achieving functional maturity.

A significant majority of imprisoned felons were abused or exploited when they were children, and they in turn have a significant tendency to abuse and exploit their own children. The transgenerational transmission of child abuse is so common that it is a predictable probability. Criminality as a

life-style may or may not be inheritable, but the tendency to abuse children is most commonly learned from parents or caretakers. And these abused children grow up to provide a large proportion of the next generation's felons and dependent citizens.

Comparing the discernible actions of the child-abuser with those of the warm nurturing caretaker, we sense that the child-abuser is projecting an internally generated rage onto a child who is a surrogate of self. The child-abuse act is an emblem of self-destruction, and comparable in psychic import to an episode of self-mutilation or attempted suicide. Child abuse usually represents such a rejection of our biological intuition that it can not be considered a trivial symptom in the abuser. Rather, child abuse often is the signal symptom of family or psychic decompensation of disabling and disastrous proportions.

The psychodynamics and characterological traits of the child beater, neglecter, and sexual exploiter may vary. Many child abuse episodes are complicated or precipitated by intoxication or substance abuse, but all share such a capacity to produce a socially disabled victim that all must be considered biologically noxious. All are a symptom of significant mental or emotional disturbance in the caretaker, and all are worthy of constructive intervention by society.

When we humans injure our children, the children must have protection until our aberration has been successfully treated.

Medical science has a contribution to make in the diagnosis of child abuse, and in the evaluation of the abuser.

*Ray V. McIntyre, M.D.*

## More Than a Pat on the Back

It is difficult to identify a profession with more problems and changes occurring in it than medicine. The one that perhaps comes the closest is nursing. In December, 1987, because of many reports of widespread difficulties recruiting and retaining registered nurses (RNs), HHS Secretary Otis R. Bowen, MD, established the Secretary's Commission on Nursing.



The commission devoted their time to an evaluation of the magnitude, causes, consequences, and future implications of the nurse shortage and came up with the following conclusions:

The reported shortage of RNs is real, widespread, and of significant magnitude. The shortage is most acute in urban hospitals, critical care and medical/surgical units, and nursing homes.

The current shortage of RNs is primarily the result of an increase in demand as opposed to a contraction in supply. Although RN supply continues to grow, the number of new RN graduates has declined, and there are strong indications that RN supply has not kept pace with the increased demand.

The shortage of RNs is contributing to the deterioration of RNs' work environment and also may be having a negative impact on quality of patient care and access to health services.

Projections for the future are not encouraging. In the short term, the quantity of care provided by the existing pool of RNs will be difficult to increase without significant intervention. In the long term, there is considerable evidence to suggest that the demand for RNs will continue to increase, and a continued imbalance with supply is anticipated.

The commission developed recommendations and directed strategies to achieve them but did not view these as the final step in addressing the nurse shortage. They encouraged organizations to examine their evaluations of the problem and to assess honestly and carefully the relevance of each issue to their own particular organization and to implement appropriate recommendations and solutions.

OSMA is in the process of doing this assessment and in the House of Delegates in May 1989 adopted Resolution 15, "Physician Support of the Nursing Profession," to restate our continued support. This resolution outlined eight methods by which OSMA would continue to work with the ONA to achieve solutions to the problems.

We also have formed a liaison committee with ONA that is now meeting to help identify potential solutions. One area that stood out immediately in our discussion was a lack of understanding on the part of the physicians regarding the goals of ONA, the education process of the different levels and categories of nurses, problems in their work environment, and related areas of concern. We will be making an attempt to better educate ourselves and our membership regarding these areas so that we can address the problems in a more informed fashion.

Excellent nurse/physician relations are built on a positive understanding of each other's professions, a need to work together, joy expressed in seeing each other succeed, and a desire to build a positive future together. The answer is not to attempt to develop a new profession of bedside care-givers such as the RCT (Registered Care Technologist) program that is floundering at this time.

The "Pride in Medicine Project" in Massachusetts suggests a few simple starters to help develop better relationships that already should be part of our everyday interactions, but probably could stand some tuning up at times:

1. SPEAK. We should interact, one person to another, and look at the person we're speaking with. It acknowledges their humanity and says that we respect their contribution.
2. STOP. When we speak with someone, we should stand still. It shows that we have time for people and that we think they're important.
3. SMILE. We nurses and physicians are the leaders in health care. We set the tone and can help coworkers feel good about their commitment.
4. CHIP IN. Help each other with the clean up, lifting, assisting, finding. It says good things about our professions. It says we're a team.
5. GREET AND THANK. Eye contact and voice lifts the spirit. Simple words like *hello*, *please*, and *thank you* cement relationships, promote understanding, and bridge the gap between our two professions.

We will continue to work with nursing to achieve some of the solutions to these problems. With all of us giving more than a pat on the back occasionally, we will improve our professional relationships.



# Treatment of Venomous Bite by High Voltage Direct Current

Carl D. Osborn, MD

**Between September 1988 and September 1989, 21 cases of confirmed or suspected spider bite were treated with high voltage direct current electric shock. In every case, tissue damage was arrested with the first treatment, and none of the cases required excision or graft.**

As a result of information from articles in *Outdoor Life*<sup>1</sup> reporting results obtained by Ronald Guderian, MD,<sup>2</sup> a hand-held electronic device (Stun Gun), which delivers 45 to 50 kV at 4.5 mA of direct current from a small 9-volt alkaline battery, was obtained for emergency first aid use in the event of a venomous bite or sting. Units of this type are carried by many police officers to control difficult subjects and by other people for personal protection.

## Method

According to Dr Guderian<sup>2</sup> and Cliff Mackey,<sup>3</sup> at least 20 to 25 kV at 1mA is needed for treatment. Multiple shocks of 1 to 2 seconds were used (two or more depending on the extent of the lesion). An extension wire (made from disposable Bovi ground wire) allowed grounding on the opposite side of a limb or across the area of reaction so that shock could be delivered through the depths of the bite and/or across the area of damage.

*Alternating current (AC, or house) is absolutely contraindicated.*

Since most venoms contain enzymes that promote dispersion of the venom, direct injection into the bite site allows spread through each needle track and should not be done.

A series of 24 cases of venomous bites occurring between September 1988 and September 1989 and treated by high-voltage DC shock is reported. No case progressed to increased tissue damage after first treatment. No case required excision or graft.

## Report of Cases

**Case 1.** A 10-year-old white female awoke with pain in her left deltoid; a brown recluse spider (*Loxosceles reclusa*), also known as a fiddleback spider because of the distinctive violin-shaped marking on its back, was found in her bed. When she came in for treatment (probably within 4 or 5 hours of injury), she had an indurated area 4 to 5 cm in diameter that was very painful to pressure; there was no discoloration. Using the Stun Gun, high voltage (45,000-50,000 V) direct current shock was administered twice through the center of the area, grounded on the opposite side of the arm. Induration began to subside within 45 minutes and pain decreased. The following morning induration had subsided to approximately 1 cm and 24 hours later had essentially disappeared. No discoloration or tissue damage occurred.

**Case 2.** A 51-year-old white female was treated in the emergency room for a brown recluse spider bite on her chest and right axilla. She was given injections of dexamethasone sodium phosphate and

Direct correspondence to Carl D. Osborn, MD, 1201 H East 5th, Ada, OK 74820.

diphenhydramine hydrochloride and started on cephalixin. Six days later she heard about Case 1 and requested treatment by the same method. A reddish purple area  $7 \times 9$  cm was found on the upper anterior right chest, with an extension on the inner, upper edge of the right breast. There was an additional  $1 \times 3$  cm area in the anterior right axilla with longitudinal central blanching and whitened skin. It was explained to the patient that a large slough which might ultimately require skin graft was possible, or probable. High-voltage direct current shocks were administered to both areas (number of shocks not noted, but more than one to each area). Intravenous calcium gluconate, 2 gm, was administered in divided doses to relieve tight chest muscles unrelated to the electric shock.

Five days later, the axillary lesion was smaller, with normal skin coloration. The anterior chest wall lesion measured  $5 \times 7$  cm, with damage appearing to be more superficial. The area was shocked twice in a cross pattern. Nine days after the second shock treatment, the area measured  $3 \times 6$  cm. The patient again had chest tightness, which was relieved by intravenous calcium gluconate, 2 gm, administered in divided doses.

One month later the patient had an area of thick dead skin  $2 \times 2$  cm and chest wall tenderness, again relieved by intravenous calcium gluconate, 1.0 gm. A picture, taken ten weeks after the bite occurred and furnished by the patient three weeks after her last treatment, showed a scar of 2 cm or less. No graft was required.

**Case 3.** A 22-year-old white female presented with a bite on her right calf and anterior right thigh that had occurred two days prior to examination (diagnosis again on basis of appearance of lesion). One day after the bite occurred, her physician injected cortisone and began treatment with antibiotics. The second day after injury she met Patient 2. She subsequently requested treatment.

A reddened right calf lesion  $11 \times 12$  cm with some darkening of the central area was found, with a red streak 2.5 to 3.0 cm wide extending to or above mid-thigh (medial aspect) (Fig 1A). The right calf measured 35 cm, the left 33 cm. A separate red lesion  $3 \times 3.5$  cm was on the anterior thigh at the junction of the middle and lower third (Fig 2A). The right inguinal nodes were slightly tender. High-voltage direct current shock was administered twice through the central area of the right calf lesion, with grounding on the opposite side of the calf; two shocks were then administered each way across the lesion in a



**Figure 1A.** Case 3 — Patient presented with reddened right calf lesion measuring  $11 \times 12$  cm.



**Figure 1B.** Right calf lesion, twelve days after treatment.

cross pattern. The anterior thigh lesion also was shocked twice each way in a cross pattern. The patient was given a tetanus toxoid booster and advised to continue her antibiotics. The following day the patient reported by telephone that all pain and swelling were gone and redness was subsiding.

When examined five days later, the calf lesion was  $2 \times 2$  cm and very superficial with dark spots that represented cortisone injection sites. The anterior thigh lesion was less than 0.5 cm with no redness (Fig 2B). No streak or inguinal node tenderness was present. The right calf measured 33 cm, the left 33 cm. (The patient again reported that all pain and swelling was gone the morning after treatment.)

**Case 4.** One day after sustaining a bite on his right thigh, this 20-year-old white male was treated elsewhere, probably with a cortisone injection. When examined two days after the bite occurred, the lesion measured  $15 \times 15$  cm, with a dark center (Fig 3A). The lesion was shocked twice through the bite, with





**Figure 2A.** Case 3 — Patient had a separate red lesion, measuring  $3 \times 3.5$  cm, on anterior right thigh.



**Figure 2B.** Five days after treatment, lesion measured less than 0.5 cm, with no redness.

ground on the opposite side of the leg, then cross shocked twice each way. The right thigh measured 49.5 cm at 22"; the left measured 48 cm at 22". There was immediate relief of pain.

Two days later, the patient reported there had been no pain since treatment. There was some purpura, and the lesion measured  $23 \times 20$  cm (Fig 3B). The right thigh measured 48 cm at 22" and the left 48 cm at 22". Shock was repeated as before.

On examination four days later, minimal purpura with a  $3 \times 2$  cm area of mild induration and a small central crust was noted (Fig 3C).

**Case 5.** This 47-year-old male awoke with cough, wheeze, and shortness of breath at 2 AM. A bite was found under the left arm and a brown recluse spider was found in the bed. The patient was treated by his physician with cortisone injections and was given prescriptions for cortisone and antibiotics. When examined three days after the bite occurred, the patient had pain, swelling, and induration under the

left arm which measured  $8 \times 14$  cm with  $1 \times 1$  cm central discoloration. High voltage shock was administered twice through the center of the lesion, followed by cross shocks twice each way. The patient reported immediate relief (less than 10 minutes) of the left arm and shoulder pain.

Five days later the patient reported he had had no pain since his last office visit. There was induration 2 cm in diameter with a 1 cm central red area with crust in the center.

**Case 6.** A 34-year-old white female presented with a history of bite (presumed to be a spider) on the right leg three days prior to examination. One day after the incident she developed marked ivy dermatitis which involved several areas (including the bite area) weeping serum. There was a  $1.2 \times 1.4$  cm raw weeping area on the anterior surface of the right leg, 13 cm above the medial malleolus. The right leg measured 30 cm and the left 27 cm at this level. High voltage shock was administered twice through the center of the lesion, with ground opposite on the leg. Shock across the lesion was administered two times each way. Methylprednisolone acetate suspension, 120 mg, was administered intramuscularly and methylprednisolone tablets (Medrol Dospak) were prescribed. (The patient reported the dermatitis began drying the next day.)

Three days after treatment, the left leg measured 27 cm at 13 cm, and the right leg 28 cm at 13 cm. The patient still had some ivy blisters but was much improved. The dark area (bite) was dry and measured  $0.6 \times 0.7$  cm.

**Case 7.** Spider bite was diagnosed in a 25-year-old white male. The patient was treated in the emergency room with cortisone injection into the bite. Injury had occurred 24 to 48 hours prior to treatment.

Examination revealed a discolored  $3 \times 3$  cm reddened area,  $15 \times 15$  cm back of the left thigh just above the popliteal space. Shock was administered twice through the bite area, and cross shocks twice each way.

Three days later, the dark area measured  $5 \times 5$  cm and the red area  $16 \times 18$  cm. The lesion was shocked as before. Examination thirteen days later revealed infection since the last visit. The patient was treated with cephalexin and cortisone. There was no pain in the  $4 \times 4$  cm red area. Eight days later the red area measured  $4 \times 4$  cm, with  $1 \times 2$  cm dark area. After another eleven days, the crusted area measured  $1 \times 1.5$  cm and the darker area  $5 \times 3.5$  cm. The patient was dismissed.

**Case 8.** A 43-year-old white female presented with a bite on the inner right thigh, first noticed 24 hours prior to examination, and now more typical in appearance. She was referred by her physician. A red area  $6.5 \times 5.5$  cm, with punctures in the center, was noted. The right thigh measured 53 cm, left thigh 52 cm. The bite area was shocked through the center twice with ground on opposite side of leg, then cross shocked twice each way. Tetanus toxoid booster was given and methylprednisolone tablets prescribed. One week later the lesion was dry,  $1 \times 1$  cm, with each thigh measuring 51 cm. The patient was dismissed.

**Case 9.** A 21-year-old white female presented with a bite on her left leg, anterior surface, 30 cm above medial malleolus. The bite had occurred four days prior to examination. Medication was started (cephradine and methylprednisolone tablets). The lesion measured  $6 \times 7$  cm and was painful. The left calf measured 35 cm, the right 34 cm. The lesion was shocked twice through center, then cross shocked twice each way. After five days, the left calf measured 34 cm, the right 34 cm. The lesion measured  $2 \times 2$  cm. The patient reported relief occurred within two hours of treatment.

**Case 10.** A 67-year-old white male presented with a bite received 9 to 10 hours prior to examination. The patient was seen in consultation at the hospital and was admitted with fever. He had a lesion on the right flank, with a 5 mm vesicle in the center of a  $13.5 \times 7.5$  cm red tender area, diagnosed as spider bite. High voltage DC shock was administered twice through the center of the lesion, followed by cross shocks twice each way. The patient had some pain relief in 5 minutes. His temperature returned to normal within four hours after shock treatment, and he had a comfortable night. He was discharged the following day by the attending physician, with a small (less than 1 cm) crusted lesion.

**Case 11.** A 30-year-old white male presented with what he thought was a spider bite, first noticed 24 hours prior to examination. The lesion had begun itching 12 hours later, and a generalized rash was noted. The patient was given a prescription for prednisolone, 10 mg, #30, to take in decreasing doses over 12 days. An injection also was administered. The lesion, on the left axillary line, measured  $15 \times 6$  cm with a dark area  $5 \times 2$  cm. It was shocked through twice, then cross shocked twice each way.

Two days later the lesion was  $12 \times 5$  cm, lighter in color, and more superficial; the dark area was  $5 \times 2$  cm, more superficial, and lighter in color. The



**Figure 3A.** Case 4 — On examination three days after bite occurred, site measured  $15 \times 15$  cm, with a dark center.



**Figure 3B.** Two days after treatment, lesion measured  $23 \times 20$  cm, with some purpura.



**Figure 3C.** Six days after treatment, lesion measured  $3 \times 2$  cm, with mild induration and a small central crust.

lesion was shocked twice end to end, making the patient more comfortable.

**Case 12.** A 27-year-old white female presented



with a "bite" and itching on the back of her right thigh, first noticed one day prior to examination. The patient reported the lesion was larger at examination. She had a red area  $12 \times 6$  cm, with a darker central area  $2 \times 3$  cm. The lesion was shocked twice through the center, then cross shocked twice each way. Methylprednisolone tablets were prescribed.

Three days after the initial visit, the red area was  $4 \times 2$  cm. The patient was comfortable (no soreness) and was subsequently dismissed.

**Case 13.** A 44-year-old white male presented with a brown recluse spider bite (vector indentified by patient) at the junction of the right shoulder with the base of the neck. The lesion measured  $3 \times 5$  cm. The bite occurred at approximately 2 AM and the patient was examined approximately nine hours later. The lesion was shocked through twice and cross shocked twice. The patient did not return but five days later reported by telephone that pain had subsided and disappeared the day of treatment and that tissue reaction had subsided so that no tissue loss or residual damage was present.

**Case 14.** A 47-year-old white female first noticed stinging in her right thigh at mid-afternoon while working in an old house. Stinging was repeated in the same area. No vector was seen. A red, itching area was noted. The area was larger the next morning and had increased in size by the time patient was examined, approximately 24 hours after the injury occurred. The area of redness and induration on the lateral mid-thigh measured  $4 \times 4$  cm. The lesion was shocked through the center twice and cross shocked twice each way. Two days after treatment, the patient reported some "itching," but looked and felt better. The lesion was  $2 \times 2.5$  cm. Upon follow-up examination five days after treatment, the lesion measured  $2 \times 2$  cm. The patient reported no problems and was released.

**Case 15.** A 22-year-old white female presented with a bite received two days prior to examination. The wound had begun itching the next day and swelling that evening. It was painful at examination. The lesion was on the medial aspect of the upper left calf and measured  $9 \times 10$  cm; the calf measured 44 cm. The lesion was shocked through twice, then cross shocked twice each way. Tetanus toxoid was administered and doxycycline, 100 mg twice a day, was prescribed. One day after treatment the patient was comfortable when still but had "burning" when up and walking. The calf measured 44 cm, with red area  $12 \times 14$  cm. The lesion was shocked as before. Methylprednisolone tablets and warm packs were

prescribed. At an office visit three days later, patient reported no pain since last treatment. There was some itching and superficial slight redness. The lesion measured  $7 \times 12$  cm, with the central lesion  $0.5 \times 0.5$  cm. The patient was released.

**Case 16.** A 26-year-old white female presented with a bite that occurred on the right thigh, medial aspect, lower one-third area, 24 to 48 hours prior to examination. The lesion,  $4 \times 4$  cm, was shocked twice, then cross shocked twice each way. Tetanus toxoid, 0.5 ccm, was administered and the patient was told to return in four days. Six days later, on the telephone, she reported "itching." She did not return for follow-up.

**Case 17.** A 28-year-old white female presented with a questionable spider bite injury received "one month ago." Examination revealed a red, tender lesion on the lower abdomen measuring  $3.5 \times 2.5$  cm with a  $1 \times 1$  cm central area. The lesion was shocked through the center and cross shocked twice each way. Five days later the patient reported having no soreness since the day after treatment. The lesion was  $3 \times 3$  cm, with less redness, and the central area measured  $0.5 \times 0.7$  cm. The patient was released.

**Case 18.** A 39-year-old white male presented with a lesion and some itching, which he had noticed on his back that morning. The lesion measured  $5 \times 5$  cm, with central puncture marks but no pain. It had been diagnosed as spider bite by the referring physician. The lesion was shocked through twice and cross shocked twice each way. Four days later the patient was itching and had superficial redness, which measured  $8 \times 9$  cm. The lesion was shocked twice each way. Methylprednisolone tablets were prescribed and tetanus toxoid, 0.5 ccm, was administered. One week after initial treatment, the lesion measured  $7 \times 9$  cm. It was superficial, with less redness and no itching. The patient was released.

**Case 19.** A 12-year-old white female presented with a wolf spider bite (positive vector identification) on the palmar surface, proximal phalanx, of the left little finger. The patient was examined three hours after the bite occurred; she had pain and slight swelling. The area of swelling was shocked twice through the finger. The patient was more comfortable in 15 minutes. Forty-eight hours later, the patient was seen with nausea, vomiting, and bellyache. Hard, tight, painful recti were noted. Symptoms were relieved by intravenous calcium (2 gm in divided doses). The patient had no swelling of the hand.

**Case 20.** A 52-year-old white male presented with spider bite. (Spider was brought in; it was

neither a brown recluse nor a black widow (*Latrodectus mactans*). The patient had an itching, tender area on his left thigh, posteromedial surface at the junction of the middle and lower third. There was no visible damage. The area of the bite was shocked twice through the thigh. The patient was to check back regarding tetanus, but reported on the telephone three days later that he was completely asymptomatic.

**Case 21.** A 35-year-old white male presented with a bite on the back of his right arm, above the elbow, which was first noticed by his wife the day before. The patient complained of itching, with a tight feeling in his arm and hand. The bite area measured 5 × 4 cm. It was shocked through twice, then cross shocked twice each way. Methylprednisolone tablets were prescribed; the patient said he was "current on tetanus."

Two days after treatment, the lesion was 5 × 4 cm and superficial, with less discoloration. Discomfort (tightness) stopped within 6 to 8 hours after treatment and did not recur. The patient's last tetanus inoculation was six years earlier, so tetanus toxoid, 0.5 cc, was administered intramuscularly. The patient was dismissed.

In addition to these cases, three hymenopterous insect stings — one bee sting, one bumble bee sting, and one red wasp sting — responded to similar treatment with immediate relief of itching and reversal of tissue reaction.

## Discussion

*Loxosceles reclusa* venom consists of at least 10 to 12 proteins, but no fraction has been isolated that produces the sequence of events that gives rise to the characteristic necrotic lesion. *Latrodectus mactans* venom consists chiefly of proteins, a few of which are enzymatic.<sup>4</sup> The beneficial effects of high voltage direct current shock in the treatment of snake bite has been established.<sup>2</sup>

C. Kregel and K.H. Meyer-zum Buschemfelde, in a 1986 letter in *Lancet*,<sup>5</sup> said, "We conclude that electrical current may directly modify the toxicity of animal venoms. Three different mechanisms seem to be responsible:

"(1) The current will influence the hydrogen bonds of the enzymes, destroying their secondary and tertiary structure.

"(2) The high voltage, low amperage current applied will reduce metal ions and zinc, copper, magnesium, iron, or calcium ions are firmly bound

to some venom enzymes and are mandatory cofactors for these enzymes.

"The electric particles interfere with the membrane as well as the positive charged polypeptides decreasing their cytotoxic properties."

As with any bite or injury, early treatment offers the best results (Case 1), but even late treatment (Cases 2 and 17) may be beneficial. Due to the habits of the brown recluse spider, most people are not aware of the bite at the time of occurrence.

Five of the bites (Cases 1, 5, 13, 19, and 20) had positive identification of a spider as the vector, with the remainder diagnosed on the appearance of the lesions. Most cases received cortisone, but the marked immediate pain relief cannot be attributed to cortisone alone.

Spider bites are a vexing clinical problem in primary care medicine, as they sometimes lead to skin necrosis and sloughing, and sometimes to an uncomfortable syndrome of chills, fever, and malaise. Envenomation is highly variable within and between species of spiders, and a prognosis on first examination is difficult. Many bites heal without morbidity or skin damage, and this complicates the evaluation of therapies aimed at preventing the skin necrosis and malaise sometimes resulting from spider bites.

In this series, no case showed any extension of tissue damage after shock was administered. Shock was repeated where there was any question of residual venom activity. The treatment quickly relieved pain in every case.

## Conclusion

High voltage, low amperage direct current shock appears to be an effective, basically safe, mildly uncomfortable first aid emergency measure or supplement to conventional therapy for venomous bites and stings of all kinds. □

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# Uptake of Trimethoprim and Metronidazole in the Seminal Vesicle: Experimental Study

V.M. Fiorica, MD; D.D. Albers, MD; Yu-Hsing Tu, PhD; Loyd V. Allen, Jr., PhD

**A rat model for determining drug levels in the seminal vesicle was developed. In separate studies, trimethoprim and metronidazole were injected intravenously into rats and assays of seminal vesicle, plasma, and prostate performed. Drug levels were detected early in both the seminal vesicle and prostate. This appears to be the first study to report drug levels in the seminal vesicle. Metronidazole levels in the seminal vesicle were very low and short lived.**

Prior to the advent of the antibiotic era, drainage of abscesses in the region of the seminal vesicle and prostate was not uncommon. The diagnosis of seminal vesiculitis continued into the antibacterial and antibiotic era, but on vague clinical criteria. Currently, effective treatment for some types of prostatitis has been established and it is assumed seminal vesiculitis coexists, although laboratory diagnosis is lacking due to difficult specimen isolation. It also is assumed that treatment of prostatitis includes the seminal vesicles, although up to this time no study has determined that antibiotic levels are achieved in the seminal vesicles.<sup>1</sup> A previous study<sup>2</sup> reported metronidazole levels in seminal fluid, but there is no assurance the seminal vesicles contributed to that level. Investigations have relied on measurements of whole semen, prostatic fluid, or prostate tissue.

This study was designed primarily to determine drug level measurements in the rat seminal vesicle. Detailed studies of the levels of trimethoprim in the rat prostate, but not in the seminal vesicles, have been reported.<sup>3</sup> There have been several anecdotal beneficial responses of chronic prostatitis seminal vesiculitis to metronidazole. We elected to include that drug in the study to see if therapeutic concentrations were reached.

## Materials and Methods

A single dose of 25 mg/kg of trimethoprim (TMP) (Sigma Chemical Company, St. Louis, Mo, Lot 125F-0687) or metronidazole (Aldrich Chemical Company, Inc., Milwaukee, Wisc, Lot 03512KT) was administered intravenously to male Sprague-Dawley rats weighing 250 to 300 gm under ether anesthesia. At the designated time, each rat was anesthetized and blood samples were collected into heparinized tubes. After euthanization, all four lobes of the prostate and the seminal vesicles were obtained. All experiments were carried out in duplicate for each sampling time period. All samples were rinsed to 0.9% NaCl solution, weighed, and immediately stored at -20°C until analyzed. The primary goal was to determine if the drug was concentrated in the rat seminal vesicle, realizing the whole organ study included tissue and secretions.

Trimethoprim in plasma and homogenized tissue samples was extracted from alkalized dichloromethane by centrifugation,<sup>4</sup> and metronidazole was extracted from ethyl acetate by centrifugation. The

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extracts were then analyzed using high-performance liquid chromatography (HPLC).

A reverse-phase HPLC system equipped with a dual piston pump (Model 6000A, Waters Associates, Milford, Mass), a loop injector (Altex 210A, Beckman Instruments, Inc., San Ramon, Calif), a variable UV absorption detector (Model 450, Waters Associates, Milford, Mass) set at 201 nm for trimethoprim and 254 nm for metronidazole, and a NOVA PAK C<sub>18</sub> column (3.9 mm × 15 cm with 5 µm packing, Waters Associates, Milford, Mass) for trimethoprim and a µ-Bonapak C<sub>18</sub> column (3.9 mm × 30 cm with 10 µm packing, Waters Associates, Milford, Mass) for metronidazole was employed. The mobile phase was a mixture (v/v) of 40% methanol and 60% 0.005M heptane sulfonic acid sodium salt solution at pH 3.06 for trimethoprim and a mixture (v/v) of 47% methanol and 53% ammonium carbonate (0.1%) for metronidazole. The flow rate was set at 1.3 ml/min for trimethoprim and 1.0 ml/min for metronidazole and the absorption recorded on a strip chart recorder (Omniscrite, Houston Instruments, Austin, Tex). A peak height ratio method was used to calculate the trimethoprim and metronidazole concentration in reference to the internal standards, chlorphenesin carbamate, and acetophenetidin, respectively.

## Results

The levels of trimethoprim detected at timed intervals for seminal vesicle, prostate, and plasma are shown in Figure 1. At peak concentrations, the tissue-plasma drug concentration ratio was 3.3 to 1

for seminal vesicle and 6.2 to 1 for prostate. Metronidazole (Fig 2) achieved lower concentrations, 1 to 2 in the prostate, and 1 to 5 in the seminal vesicle.

## Discussion

Numerous studies in the human and in experimental animals have elucidated the concentration of trimethoprim in prostate,<sup>5,6</sup> prostatic fluid,<sup>7,8</sup> and seminal plasma.<sup>9</sup> No report to date has investigated the concentration of trimethoprim or other antibacterials in the seminal vesicle. This lack of information has been due in part to the difficulty of obtaining isolated seminal vesicle fluid for study. The rat was selected as an experimental model in view of its large genital organs, especially seminal vesicles.

Currently, infections of the seminal vesicle probably masquerade clinically as prostatitis, and empiric therapy for one entity may adequately treat the other. Seminal vesiculitis, though well known in other species,<sup>10</sup> has been difficult to document in humans. Although correlation to the human situation is unknown, we have shown in our rat model that trimethoprim, widely used for prostatic infections, achieves significant tissue levels in the rat seminal vesicles. This finding suggests that current treatment of bacterial prostatitis with trimethoprim might treat bacterial seminal vesiculitis as well.

With the advent of prostatic ultrasonography, imaging of the seminal vesicles may now be achieved, and with experience, seminal vesiculitis diagnosed. Consequently, it is important to understand which antimicrobials achieve adequate concentrations in

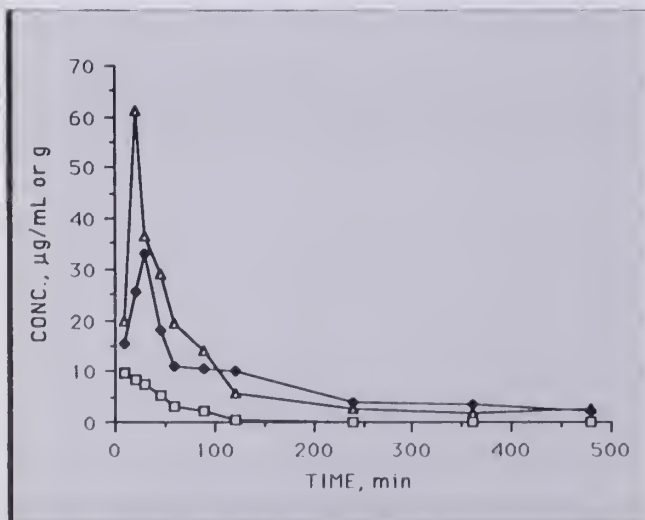


Figure 1. Concentration of trimethoprim as a function of time for [□] plasma, [Δ] prostate, and [◆] seminal vesicle.

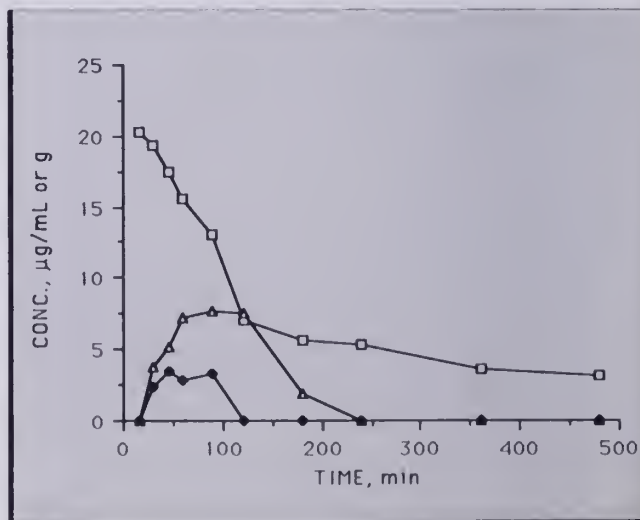



Figure 2. Concentration of metronidazole as a function of time for [□] plasma, [Δ] prostate, and [◆] seminal vesicle.



the seminal vesicle so that therapy may be appropriately based.

Due to the lower levels of metronidazole in the seminal vesicle, the anecdotal benefit of this drug is not confirmed in this experimental study. 

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## Coming next month

Manuscripts being prepared for publication in February include a report on renin-secreting tumors, an analysis of methicillin-resistant *Staphylococcus aureus* among veterans, and a commentary on cocaine babies in Oklahoma.

# Another Complication of Intravenous Catheterization: A Case Report

Mark B. Smith, MD

**The list of possible complications following central vein catheterization has been well described.<sup>1</sup> A technique for placement of a catheter into a central vein has to be learned by the individual following guidelines dictated by anatomical understanding, literature reporting, and other practitioners' previous experience. We report here another complication of intravenous catheterization where the first catheter is severed completely by a second, larger needle.**

**M**ore doctors and paramedical staff are being required to start intravenous infusions. The possible complications of venous cannulation may not be fully appreciated. We report here a complication of multiple attempts at venopuncture at the same site.

## Case Report

A 27-year-old male was scheduled for tendon transfer surgery. The palmaris longus tendon of the left hand was to be grafted into the flexor digitorum tendons of the first and second fingers of the right hand. The patient was fit and well and gave no history of complications or contraindications to the planned general anesthesia. Because of the bilateral upper limb surgery, venous access presented a problem.

The external jugular vein on the left side was selected as a suitable alternative to a peripheral vein.

After sterile skin preparation and local anesthesia to the area, the patient was positioned in a slight trendelenberg. A 1.5" (32 mm) 18 g intravenous catheter was used to attempt venopuncture. Despite a flashback of blood and a seemingly easy advancement of the catheter, when the needle was withdrawn completely there was no return of blood even when syringe suction was applied. The assumption was made that the catheter had passed through the vein and was lying subcutaneously and extravascularly. It was left in situ to minimize hematoma formation.

A second attempt was made, this time using a 1.25" (30 mm) 16 g intravenous catheter, anteriorly and medially to the first. Access to the external jugular vein was achieved without difficulty and the catheter was secured in position.

The original 18 g catheter was then removed. However, only the hub and 1/4" of the catheter was removed intact, the proximal end being cut and frayed. Anteroposterior and lateral X-rays were taken (Fig). The cut distal end of the catheter was identified in the neck and presumed to be extravascular.

Consent was obtained from the patient for surgical removal of the catheter remnant during general anesthesia for the primary procedure. The cut end of the catheter was removed from the subcutaneous

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**Figure 1A.** Anteroposterior view shows intravenous catheter in external jugular vein, with cut catheter alongside.



**Figure 1B.** Lateral view

tissue through a 1 cm incision over the puncture site. The fragment was completely extravascular. Surgery to the tendons proceeded without problems and recovery was uneventful.

## Discussion

Until the recent introduction of double and triple lumen catheters for intravenous access, it was common practice to put multiple catheters into the same large vein. Cutting the indwelling catheter was a recognized, although rare, complication.

The complications of central venous catheterization are well known and recorded. Hematoma formation, infection, pneumothorax, intra-arterial catheterization, and any combination of these are the more expected problems.

Manufacturers repeatedly advise against the reintroduction of the needle into the catheter for fear of cutting the catheter.

The risk of cutting the catheter is greater when using a catheter-through-needle device as opposed

to a catheter-over-needle technique because the cutting edge of the needle is wider than the catheter. The withdrawal of an epidural catheter through an in situ Tuohy epidural needle is not recommended because of the risk of cutting the catheter.

In our case the use of a second needle and catheter larger than the first was not logical because the cutting edge of the second needle was larger than the first catheter. It is logical, however, to leave a catheter in place if the vein wall has been traversed, in the hope that hematoma formation will be reduced.

The retrieval of large fragments of cut catheters from the great veins of the chest via the femoral veins, under radiological fluoroscopic control, is a relatively simple and safe operation not infrequently performed.

A small, cut segment released into the venous system has a final resting place in the pulmonary arterial tree, unless there is an intrathoracic vascular anomaly. Pulmonary particles can be left alone as long as no complications, such as infection, hemor-

rhage, or flow obstruction, occur. Subcutaneous debris, if not infected, also can be left undisturbed. We removed this cut catheter because it was immediately accessible and a general anesthetic was to be administered for the primary surgical procedure.

In summary, we present a case of catheter fragmentation as a cautionary tale and a reminder of a complication of unisited multiple venopuncture. **J**

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Blankenship, Robert C., M.D.	Goldenstern, Linda, M.D.	Lind, Timothy A., M.D.	Searcy, R.A., M.D.
Brockman, Todd A., M.D.	Gordon, Richard, M.D.	Loughridge, B.P., M.D.	Setter, Kenneth, R., M.D.
Browning, David, Jr., M.D.	Graham, H.C., Jr., M.D.	Lubin, Robert I., M.D.	Sevier, Bill R., M.D.
Burns, Dixon N., M.D.	Graham, H. Vondale, M.D.	Marberry, Tom A., M.D.	Sheehan, William W., M.D.
Calhoon, Harold W., M.D.	Gray, J. Robert, M.D.	Marino, Gregory, M.D.	Shellabarger, Paul, M.D.
Campbell, John G., M.D.	Green, James D., M.D.	Martin, Fred R., M.D.	Schildt, Richard A., M.D.
Clendenin, Michael B., M.D.	Greenberg, Lewis, M.D.	Mask, Neal A., M.D.	Simmons, Terrill, M.D.
Cohen, Eugene, M.D.	Gregg, Lawrence J., M.D.	Mayfield, J. Donald, M.D.	Simon, Norman, M.D.
Cohen, Randolph D., M.D.	Griffin, James L., M.D.	McCauley, Michael P., M.D.	Sisler, Jerry, M.D.
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Conley, Patrick L., M.D.	Hale, Arthur E., III, M.D.	McDowell, R.E., M.D.	Snipes, James J., M.D.
Covington, Christopher, M.D.	Harper, C.A., Jr., M.D., P.C.	McShane, William R., M.D.	Starkweather, George A., M.D.
Covington, Terrell, Jr., M.D.	Harper, David L., M.D.	Medina, Jose R., M.D.	Steichen, Kevin, M.D.
Daley, Patrick, M.D.	Harrison, Thomas L., D.O.	Melichar, Robert, M.D.	Stoesser, Bruce, M.D.
Day, James S., M.D.	Harrison, William E., Jr., M.D.	Merifield, David O., M.D.	Stolow, Joshua B., M.D.
Dennehy, Timothy H., M.D.	Haswell, Glenn, L., M.D.	Mihelich, Thomas D., M.D.	Stout, Donald R., M.D.
Dilger, J. Thomas, Jr., M.D.	Heaver, Holly, M.D.	Miller, Archibald S., M.D.	Strange, Jimmy R., M.D.
Dillman, Robert E., M.D.	Hendricks, James W., M.D.	Miller, G. Lance, M.D.	Stratton, H.L., M.D.
Dixon, Richard E., M.D.	Hendrix, Paul G., M.D.	Miller, J. Steve, M.D.	Swafford, Melvin R., M.D.
Dolan, C. Terrence, M.D.	Hoffman, Kenneth C., M.D.	Mims, Leroy, M.D.	Tate, Emmett, M.D.
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Fleming, Joseph F., M.D.	Knox, C. Frank, M.D.	Perryman, Philip W., Jr., M.D.	Zanetakakis, Ellen I., M.D.
Fore, Frank N., M.D.	Kramer, John, M.D.	Pfanstiel, Carl E., Jr., M.D.	Zanovich, Terry L., M.D.
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### *Jack Spears named honorary member*

## **OSMA trustees adopt retirement plan during November meeting**

A retirement plan for members was endorsed by the Oklahoma State Medical Association (OSMA) Board of Trustees at its November 19 meeting in Tulsa.

The board approved a recommendation from the OSMA Council on Member Services to join the Investment and Retirement Program of the American Medical Association. Under the licensing agreement, which commits the OSMA to no financial obligation, the OSMA agrees to promote the plan to its members. The association will receive a royalty of  $\frac{1}{4}$  of 1% per annum of the aggregate daily net asset value managed by the AMA for Oklahoma physicians.

In other action, the board voted to amend the Articles of Incorporation of the Physicians' Liability Insurance Company (PLICO) in order to comply with new legislation. The new law allows PLICO to designate its advisory board members as directors.

**Awards.** OSMA President John R. Alexander, MD, Tulsa, presented an OSMA Honorary Membership to Jack Spears, former executive director of the Tulsa County Medical Society. Spears, who retired in December 1985, served as TCMS executive director for 44 years. His tenure is believed to have been the longest of any medical society executive in the United States.

**Report of the President.** Dr Alexander reported he met with Senator David Boren and AMA Executive Vice President James Sammons, MD, to lobby against expenditure targets (ETs) and to encourage eliminating or altering the cap on balanced billing, and the geographic variations in Medicare reimbursement to physicians — both the national variations and rural/urban differentials. He said Senator Boren was supportive of the OSMA position and the RBRVS being considered at that time, explaining that the ET issue was replaced by a Medicare Volume Performance Scale (MVPS) proposed by Senator Rockefeller.

Dr Alexander said that a joint OSMA/Health Sciences Center PPO Committee has been developed to help work out problems relating to the Oklahoma



Jack Spears, former executive director of the Tulsa County Medical Society, thanks the OSMA Board of Trustees for his honorary OSMA membership. President John R. Alexander, MD, (seated) presented the award.

State Employees Group Insurance Board health care plan that potentially covers over 200,000 Oklahomans. OUHSC proposes to develop an Exclusive Provider Organization (EPO) and limit its patient participation to 15,000 and also will consider consultative services contracts in the areas of special coverage. This will allow all physicians and hospitals to participate at some level if they agree to the limits of the plan, which will be the same for all participants.

**Report of the Secretary-Treasurer.** OSMA Secretary-Treasurer James Funnell, MD, Oklahoma City, reported an OSMA non-member physician count of 849, the largest ever, but said the records also indicate the highest number of members ever. Many of the non-members, he said, are government physicians, Health Sciences Center physicians, and residents and students.

(continued)



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## Trustees *(continued)*

**PLICO Report.** PLICO President C. Alton Brown, MD, Oklahoma City, announced that there will be no increase in premiums for professional liability in 1990.

**VIP Program.** OSMA Executive Director David Bickham noted that many of the physicians in the state who received cards asking about their interest or participation in the VIP program have not yet returned those cards. He said the OSMA is compiling a list of VIP physicians that is to be used exclusively for VIP referral and emphasized that it will not be made available to the general public. The purpose of the program, he explained, is to assist the elderly in finding a VIP physician.

**Council on Public and Mental Health.** Council Chairman Robert Mahaffey, MD, Tulsa, reviewed a council resolution calling for the OSMA to participate in the planning of proposals designed to provide perinatal care for all pregnant women in Oklahoma. The resolution will be presented at the OSMA Annual Meeting in May. He also announced that under this council an Alcohol and Drug Education Task Force has been formed, with Dr John Alexander as chairman.

**Council on Medical Services.** Mr Lyle Kelsey presented the council's report; it noted that the council is receiving requests from smaller hospital medical staffs to review medical charts on specific physicians and that an ad hoc committee has been appointed to recommend policy for the OSMA in such reviews.



**On the road,** OSMA Executive Director David Bickham (r) visits with Norman physician George H. Hulsey at the fall meeting of the Cleveland-McClain County Medical Society.



Mr Kelsey reported that the council had reviewed seven of the OSMA policy statements presented at the August board meeting. On the issue of surgeons utilizing physician assistants as assistant surgeons and billing insurance carriers for the assistant surgeon fee, the council was unanimous in its opposition and plans to study the issue further.

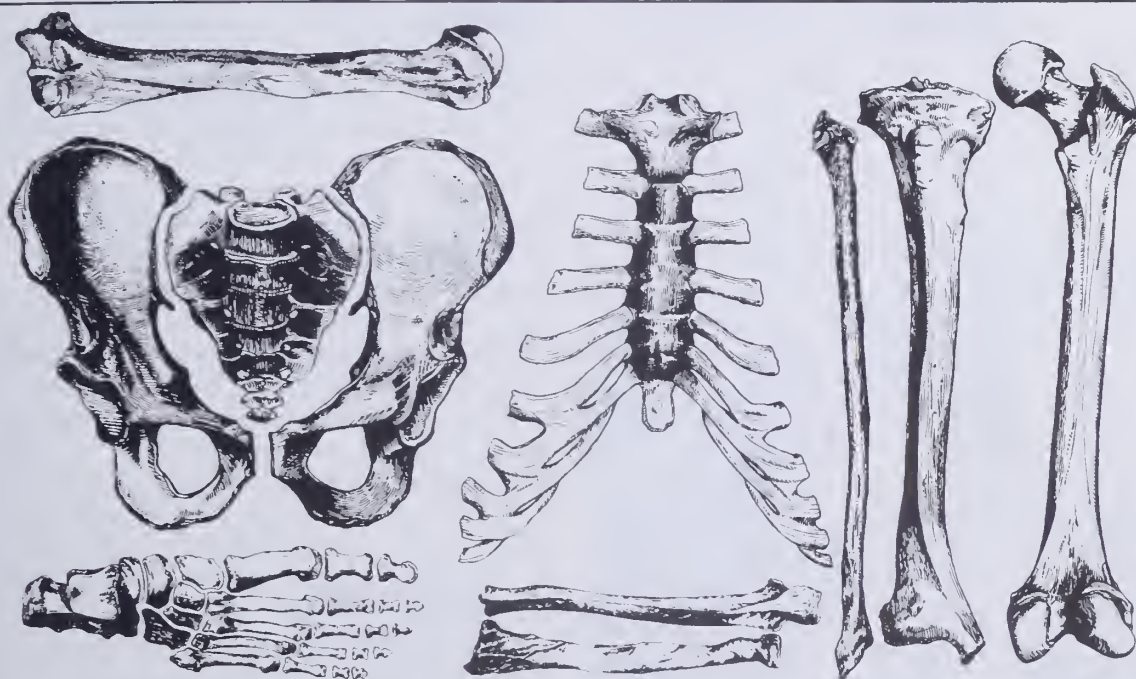
**Executive Director's Report.** In discussing PLICO, Mr Bickham said that the OSMA had petitioned Insurance Commissioner Grimes to consider whether PLICO could limit its writings to OSMA members only and had received no reply. He explained that informal inquiries have continued, noting that a quick decision is preferable to discourage legislation requiring PLICO to insure DOs.

Regarding regulations on physician advertising of board certification, Mr Bickham referred to information from the Board of Medical Licensure and Supervision which is being reviewed before being sent to the Legislature for consideration. Revisions are underway and Dr Mark R. Johnson, Oklahoma City, will develop a rule for the Legislature's final approval.

Mr Bickham asked for a vote and the board approved the Shangri-La resort near Afton, Okla, as the site of the 1991 Annual Meeting of the OSMA House of Delegates.

**Membership Applications.** The board approved Life Membership status for the following physicians: Nolan L. Armstrong, MD, Emil P. Farris, MD, James B. Pitts, Jr., MD, and Robert Sukman, MD, Oklahoma City; Glen L. Berkenbile, MD, Robert H. Chappell, MD, and Robert G. Perryman, MD, Tulsa; Joe E. Collins, MD, Edmond; Martin J. Fitzpatrick, MD, Muskogee; and Robert W. King, Sr., MD, Bella Vista, Ark. □

*84th ANNUAL MEETING  
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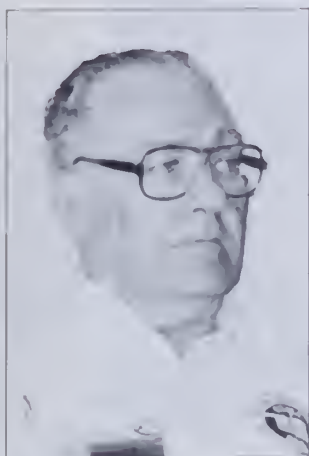
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**Oklahoma delegate** John A. McIntyre, MD, (l) Enid, and OSMA President John R. Alexander, MD, Tulsa, listen to discussions at the December interim meeting of the American Medical Association in Honolulu.

Under 30 years of age

## **Breast cancer in younger women merits a conservative approach**

Because breast cancer in women under age 30 is rare, breast masses appearing in young women should be managed conservatively, says a study in November's *Archives of Surgery*.

The authors, Charles M. Ferguson, MD, and Waldo Powell, MD, of the Department of Surgery, Emory University School of Medicine, Atlanta, reviewed breast biopsy records of 751 patients aged 40 years or younger. There was no cancer found in the 178 patients under age 20 who underwent biopsies. Of 150 patients aged 21 to 25 years, two had cancer. Beginning at age 26, there was a steady rise in the incidence of cancer detected via biopsy. In the 36- to 40-year age group, cancer was seen in 24.4% of biopsies.

"A low rate of malignancy in young women helps to justify a noninvasive approach to the evaluation of breast masses . . . consisting of aspiration cytology and possibly mammography before excisional biopsy," the authors write. They also report finding a higher incidence of nonspecific fibrocystic disease than cancer on biopsy. In 456 patients younger than age 31, the authors found eight cases of cancer, while 102 had nonspecific fibrocystic disease.

"We are now cautiously substituting aspiration cytology for formal biopsy in women under the age of 30 with dense fibrocystic disease and indistinct breast masses," they write. J

Improvement significant in 85%

## **Outlook good for majority of anorexic adolescent patients**

The majority of adolescent girls who suffer from the eating disorder anorexia nervosa will return to normal weight and resume normal menstrual periods after treatment, says a study in November's *American Journal of Diseases of Children*.

The report, by Richard E. Kreipe, MD, of the Department of Pediatrics, University of Rochester Medical Center, NY, and colleagues, describes the long-term outcome of 49 adolescent girls hospitalized for the treatment of anorexia nervosa. Patients were interviewed an average of 80 months after hospitalization. The mean age at follow-up was 22.7 years. From admission and follow-up, body weight increased from 72% to 96% of ideal body weight. Menstrual functioning returned to normal and no patient reported infertility. Fewer than 15% of patients had severe, ongoing problems with their eating disorder. The researchers also found that educational and employment achievements were not affected by the disorder.

"Our data suggest that adolescents with anorexia nervosa can be treated successfully with a developmentally oriented, multidisciplinary approach that includes inpatient and outpatient management based in pediatrics," the authors conclude. J



**US Senator David L. Boren** (r) enjoys a physician reception held in his honor November 12 at the Waterford Hotel in Oklahoma City. With him are Dr Kenneth W. Whittington (l), Bethany, and Dr Larry L. Long, Oklahoma City.

## Methicillin-resistant *Staphylococcus aureus* attracting attention



Issues surrounding outbreaks of infections caused by methicillin-resistant *Staphylococcus aureus* (MRSA), as well as admissions into extended and acute care facilities and treatment of patients with these infections, became a national public health concern in 1989. At the annual meeting of the Council of State and Territorial Epidemiologists held in Oklahoma City in May 1989, the council's president, Greg Istre, MD, state epidemiologist, proposed a resolution to be forwarded to the Centers for Disease Control, Atlanta, recommending development of national guidelines addressing treatment and prevention of MRSA.

In June 1989, Presbyterian Hospital hosted a meeting of physicians, infection control practitioners, laboratory technologists, state and county health department representatives, and nurses from extended and acute care facilities with the following purposes: (1) Identification of Oklahoma health care professionals interested in the control of MRSA; (2) discussion of the options available for planning statewide guidelines; and (3) development of a plan for future meetings.

The key problems identified by this group of health care professionals included: the need for open,

comprehensive, and frank communications between extended and acute health care facilities; the increasing incidence of MRSA colonization and infection in patients from both types of facilities; the need for education about MRSA for health care professionals in all types of health care facilities; the epidemiological necessity of viewing acute and extended care facilities together in the overall provision of patient care; and the need to develop guidelines to control the spread of MRSA.

Currently, "Guidelines for the Control of Methicillin-Resistant *Staphylococcus aureus* in Acute and Extended Care Facilities" is in its second draft form, with the third draft to be finalized this month. The core committee established to write the MRSA guidelines is meeting this month to review the third draft.

Physicians who would like the opportunity to help mold this developing public health policy document, and who would be willing to spend time to review and comment on the guidelines, should contact Patrice Boden, RN, epidemiologist, Oklahoma State Department of Health, phone (405) 271-4060. The Oklahoma State Department of Health is interested in comments from all parties concerned with this problem.

[See related article in next month's JOURNAL.]

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## Six-day critical care course to be conducted in Oklahoma City

The 17th Annual Critical Care Medicine Course will be held Sunday through Friday, March 4-9, 1990, at the Holiday Inn Airport West in Oklahoma City; it will be an extensive six-day educational experience.

Reputed to be the second longest running course of its kind in the country, it will cater to physicians who wish to expand their knowledge in the field of critical care medicine or who wish to review and update current critical care philosophies and research areas.

An excellent buy, with tuition this year set at \$600, the course includes five continental breakfast buffets and five "Question and Answer" luncheons in addition to daily didactic presentations, afternoon and evening workshops, panel discussions, small group discussions, and demonstrations, plus a syllabus to minimize note taking, a Learning Resources Center (multimedia self-teaching program), and an

optional pre- and post-course exam. House staff tuition is \$500 and must be accompanied by a letter from the director of the training program. Physician Assistants and registered nurses with interest and knowledge in the critical care area also are welcome to register.

Accreditation by the American Medical Association, the American Academy of Family Physicians, the American Osteopathic Association, and the American College of Emergency Physicians has been approved.

For further information please contact D. Robert McCaffree, MD, course director, or Dora Lee Smith, course coordinator, at (405) 271-5904 or write to: Critical Care Medicine Course, University of Oklahoma Health Sciences Center, Room 3 SP 400, PO Box 26901, Oklahoma City, OK 73190.



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## Kingfisher family practitioner says he enjoys running for his life

Stephen R. Arthurs, MD, has developed his hobby of distance running so well that he has qualified for the prestigious Boston Marathon two times, and finished both races with good performance times of 2:53 and 2:56.



Dr Arthurs, a family practitioner and OSMA member who practices in Kingfisher, has been exercising his hobby of distance running for about five years. While the running began as a health tune-up exercise, the regimen has grown into an interesting avocation, with emotional rewards far beyond the major health benefits gained. And he has trophies to display.

Dr Arthurs attends distance race events eight to ten times a year and competes in races ranging from 10 kilometers up to the full marathon distance of 26 miles 385 yards. In addition to the classic Boston races, he has competed in four other organized competition marathon events in Tulsa and Dallas, and twice in Oklahoma City.

A rigorous training program is necessary to maintain the conditioning required to perform at these intensities, and Dr Arthurs schedules at least an hour of running every day. As much as three hours a day is required when preparing for certain special races. Dr Arthurs customarily devotes his noon lunch hour to running and ordinarily traverses nine to ten miles each day. His "day off" is sometimes spent on longer runs. He reports that his longest run was 28 miles.

Dr Arthurs, often called Steve, has successfully integrated his rigorous training schedule with his active practice of family medicine. At those times when he is on call and his training regimen requires running, he merely straps on a beeper and runs near the hospital so he can respond within a minute or two to a pager call. One Code Blue has already received a timely response with this method, and Steve believes that a real emergency can be correctly treated by a physician in running gear.

Dr Arthur's wife, Peggy, and children, Jason, Ryan, and Stephanie, enjoy and support the training and competitive events. The children's extracurricular activities are carefully given equal time and the younger son, Ryan, enjoys running with his dad. The out-of-town racing events are made into family outings when possible. Dr Arthurs reports that Peggy is sometimes called on to transport him to the neighboring town of Hennessey, so he can run back to Kingfisher. Always running *with* the wind, he adds.

When asked about unusual events while running, Steve notes that he never sees damsels in distress, and only on rare occasion has met an irritable dog or skunk. Occasionally a veering auto has sent him to the ditch, but the most memorable practice run he recalls is the time he was caught in a hail storm. Steve observes that running offers a special perspective on both countryside and city, and he sometimes runs in cities he visits in order to learn more about them. While he often listens to a radio while running, Steve also notes that he does "my thinking" while running.

Patients and friends often comment about seeing him on his training runs and encourage him to "win the marathon." Steve reports that running gives him a positive emotional experience. Although he has never experienced a runner's euphoria, there is a definite anti-anxiety and relaxing effect from the exercise. His physical status has been markedly improved by the regimen, with a weight loss of 15 pounds, a reduction of resting heart rate from 78 to 48, and a marked increase in endurance.

Steve Arthurs believes running is great for your health, and he hopes to continue his hobby for many years.

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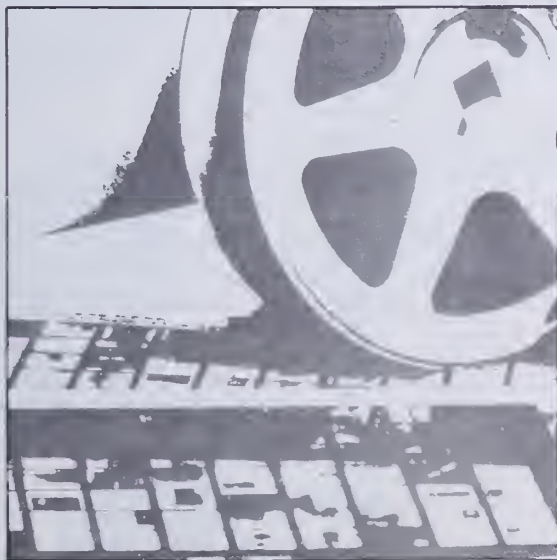
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## DEATHS

### Edmund Gordon Ferguson, MD 1900 - 1989

OSMA Life Member E. Gordon Ferguson, MD, died November 17, 1989, in Oklahoma City. A retired ophthalmologist, Dr Ferguson was born in Cameron, Tex, and graduated from the University of Oklahoma School of Medicine in 1929. He was a clinical professor of ophthalmology at his alma mater and had numerous professional and civic affiliations.

## IN MEMORIAM

### 1988

Peter A. MacKercher, MD	September 17
Haskell Smith, MD	September 27
William Eldon Wendel, MD	October 5
Tullos Oswell Coston, MD	October 21
Frank Herbert Austin, MD	November 11
Lyman Cunningham Veazey, MD	November 11
Loyd Lee Long, Jr., MD	December 6
Michael W. Brown, MD	December 25
Charles Nathaniel Atkins, MD	December 28
French LaZelle Worthen, MD	December 28

### 1989

John Hoyle Carlock, Jr., MD	January 19
Michael Bailey McCarty, MD	January 22
Alexander Shadid, MD	February 2
Moorman Paul Prosser, MD	February 12
Robert Vern Weger, MD	February 18
William Lawrence Bond, MD	March 26
Mary Edna Sippel, MD	April 10
Ruben Hilton Mayberry, MD	April 20
Norman Eugene Dearnbarger, MD	May 6
Gordon Kent Jimerson, MD	May 6
Orville McClure Woodson, MD	May 11
Robert Sears Davis, Jr., MD	May 13
James Richard Riggall, MD	May 30
Howard Choice Martin, MD	July 23
D. Evelyn Miller, MD	July 30
Nevin Wilson Dodd, MD	July 31
Alwyn Travers Kornblee, MD	August 7
Edward Keats Norfleet, MD	August 13
Wayman Jackson Thompson, MD	September 20
Rheba L. Huff Edwards, MD	September 30
George Harry Garrison, MD	October 5
Edmund Gordon Ferguson, MD	November 17

For better patient care

### *Thirteen hospitals in OKC begin new year with no-smoking rule*

On January 1, 1990, thirteen member hospitals of the Greater Oklahoma City Hospital Council became smoke-free facilities. All patients, visitors, physicians, employees, and volunteers at the hospitals have been asked to assist in creating a smoke-free environment.

The participating hospitals are: Baptist Medical Center, Bethany General Hospital & Pavilion, Children's Hospital of Oklahoma, Deaconess Hospital, Hillcrest Health Center, Logan Hospital and Medical Center, Mercy Health Center, O'Donoghue Rehabilitation Institute, Oklahoma Memorial Hospital, Presbyterian Hospital, South Community Hospital, the US Air Force Hospital at Tinker Air Force Base, and the Veterans Administration Medical Center.

Deaconess Hospital went smoke-free on January 1, 1989. The Veterans Administration Medical Center adopted a smoke-free policy on July 4, 1989.

The hospitals also will prohibit tobacco sales on their campuses.

"As leaders in our healthcare community, we must provide the active support necessary for the successful implementation of a smoke-free environment for the betterment of patient care as well as employee health and safety," said Richard Luttrell, executive director, Greater Oklahoma City Hospital Council.

The hospitals are making smoking cessation programs available to employees and their families to assist them in adjusting to the policy change.

"Compliance with the policy is expected based upon the importance of our example to our patients and the public," Luttrell said. "The hospitals will exercise compassion, tact, diplomacy, and appropriate judgment in implementing this policy."

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**Review of Pathophysiology.** Edited by Christian E. Kaufmann, Jr., and Solomon Papper. Boston and Toronto: Little, Brown and Co., 1983, \$24.95.

*Review of Pathophysiology* was designed to furnish the second-year medical student with a base of clinical information on which to build during subsequent years. In attempting to span the gap between the basic sciences and bedside observation, the editors have attempted to create a useful format for students, house staff, and practicing clinicians seeking a discussion of pathophysiology that is less detailed than that available in the standard text. Most of the contributors are members of the faculty of the University of Oklahoma College of Medicine.

The text focuses on the principal disorders considered by the clinical disciplines by organ systems and major syndromes — aging, cardiovascular disease, metabolism, gastroenterology, hematology, immunology, nutrition, pulmonary diseases, surgery, and trauma. Each chapter begins with a brief review of common or classic disease processes. As might be expected in a book with multiple authors, the treatment of some topics is uneven. There are questions

at the end of each chapter with answers and analysis and an appendix.

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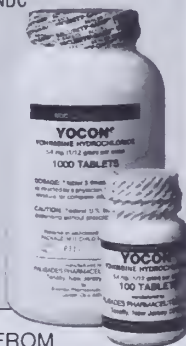
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1. A. Morales et al., New England Journal of Medicine: 1221, November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27:2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128: 45-47, 1982.

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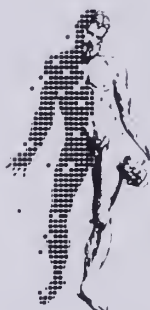
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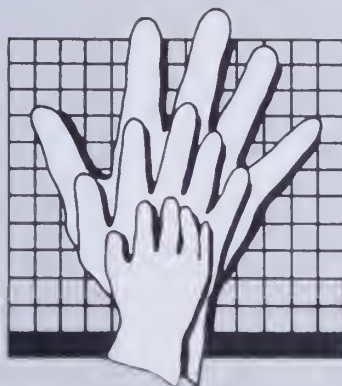
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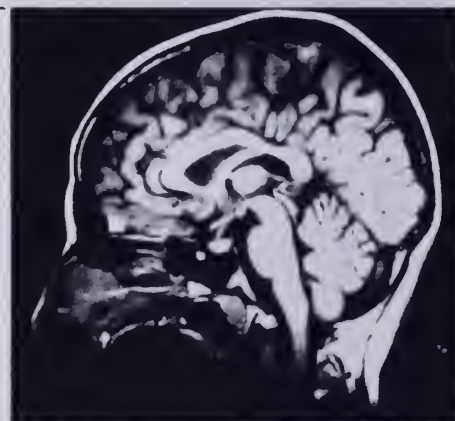
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## INSTRUCTIONS FOR AUTHORS

### Contributions

Articles submitted for publication, including Annual Meeting papers, become the sole property of the JOURNAL and must not have been published elsewhere. The Editorial Board reserves the right to edit any material submitted. Manuscripts must be typewritten, double-spaced, and submitted in duplicate. Receipt of manuscripts will be acknowledged, and unpublished manuscripts will be returned. The JOURNAL does not assume responsibility for the statements or opinions of any contributor.

### Style

All manuscripts should adhere to the style adopted by the American Medical Association as illustrated in *JAMA* and detailed in the AMA's *Manual of Style*. Footnotes, bibliographies, and legends for illustrations should be typewritten, double-spaced, on separate sheets. References are to be listed in the order of their appearance in the article.

### Illustrations

Illustrations other than the author's will not be accepted for publication unless accompanied by written permission from the original source. Illustrations should be labeled with the author's name and must be numbered in the order in which they are referred to in the article. The quality of all illustrations must be in keeping with the quality of the magazine.

### News

Readers are encouraged to submit news items of interest to Oklahoma physicians. Where dates of meetings, etc., are important, please remember that each issue closes on the first day of the *preceding* month and reaches subscribers in the latter half of the month of publication.

### Reprints

Authors will receive reprint order forms from the Transcript Press, 222 East Eufaula, Norman, Oklahoma 73069, prior to publication of their articles. Other requests for reprints must be made to the Transcript Press within 30 days after publication.

### Back Issues

Microfilm copies of back issues of the JOURNAL can be purchased from University Microfilms International, 300 North Zeeb Road, Ann Arbor, Michigan 48106.

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## Make a Choice!

**T**he potential to *MAKE A DIFFERENCE* in the legislative arena, as medical legislation continues to be a prime target in our state legislatures as well as in Congress, has led to wider participation by auxiliaries across the nation. Jean Hill, AMA Auxiliary president, in her inaugural address this past summer, said, "As partners with the medical profession we must be united . . . so that we use the power that is within the auxiliary to be the deciding factor in areas where we have special influence."

The OSMA-OSMA Auxiliary relationship of working together in legislative efforts can certainly be the key in effecting legislation that affects the medical practice parameters within which our physicians must work. Our joint efforts will help to ensure that physicians can continue to provide the high quality of medicine their patients expect . . . and deserve.

As members of the medical community, we are faced with many responsibilities . . . but two of these involve our efforts in the legislative area — one, as voters; and second, as a knowledgeable resource on today's healthcare issues. Who better to articulate medicine's concerns than those who live it on a daily basis?

Politics and legislation have become so tightly entwined that success in one does not come without involvement in the other. Recognizing this fact, the

OSMA and OMPAC, together with AMPAC, have coordinated a special education program to provide you with legislative understanding and grassroots skills in one day-long seminar. It will be conducted by nationally recognized political consultant Michael E. Dunn of Washington, DC. The seminar focuses on how physicians and spouses can develop a high-quality relationship with lawmakers, communicate effectively, and become political players on behalf of medicine.

This Constituent Skills and Political Education Seminar will take the place this year of Medicine Day at the Capitol. The seminar (offered to you free of charge) will be held in Oklahoma City on March 7, 1990, and in Tulsa on March 8, 1990. You may attend either one (but only one). It will begin with registration at 8:30 AM and will adjourn at 4:30 PM. Mark your calendars now to attend the seminar of your choice.

The second session of the 42nd Legislature begins February 5. Political campaigns have already begun. You have the opportunity to make an impact on medicine's course in Oklahoma — but only if you let your voice be heard. **MAKE A CHOICE TODAY — TO MAKE A DIFFERENCE TOMORROW!**

—Sherry S. Strebel  
OSMAA Legislation Chairman



■ **The 1990-1991 Directory of the Oklahoma State Medical Association (OSMA)** was released last month, and complimentary copies were mailed to all member physicians. Additional copies are available to members for \$15 per copy. Non-members may purchase directories for \$30 per copy, with the charge dropping to \$15 per copy for bulk orders of ten or more. All orders *must* be prepaid. Checks should be made payable to OSMA and mailed to 601 Northwest Expressway, Oklahoma City, OK 73118.

■ **Warren G. Gwartney, MD, a Tulsa family practitioner**, has been named Alumnus of the Year by Northeastern State University in Tulsa and was honored in special homecoming activities in October. After completing his studies at NSU, Dr Gwartney earned his medical degree at the University of Oklahoma College of Medicine in 1950.

■ **Tulsa cardiologist Lofty L. Basta, MD**, will be the local director of a national study on the efficacy of a new cholesterol-lowering medication. The study is being coordinated nationally by a steering committee at Harvard University Medical School and will follow 4,000 patients over a five-year period. One hundred to 200 of these patients will be from the Tulsa area.

■ **Stillwater dermatologist Robert Allan Breedlove, MD**, was the featured luncheon speaker during the 78th Annual Meeting of the Oklahoma Academy of Science. The title of Dr Breedlove's 45-minute talk and color slide presentation was "Skin for the 90's." Over 200 scientists attended the November 10 meeting, held on the Central State University campus in Edmond.

■ **The American Medical Association (AMA)** has established a toll-free telephone number, 1-800-AMA-3211, for Oklahoma physicians calling its Chicago headquarters. The service was begun for Oklahoma and Kansas physicians in December and will be gradually expanded to include all AMA members by December 1990.

■ **The leaders and executive staff of the Oklahoma State Medical Association** are scheduling appearances at county medical society meetings across the state in an effort to share information and update members on OSMA activities. Topics of discussion can range from state and federal politics to physician reimbursement to tort reform to the

OSMA Physician Recovery Program. County societies wishing to schedule a visit may do so by calling OSMA headquarters, (405) 843-9571 or 1-800-522-9452.

■ **Edmond physician William J. Hale and his wife, Sandy**, were honored November 27 with a "point of light" award from President George Bush. The new White House program, which salutes outstanding volunteers, recognized the Hales for their work in establishing and operating a free medical clinic near downtown Oklahoma City. The Hales, both of whom have multiple sclerosis, have been directing the clinic since 1973. The Hales' award is the second presented thus far in the program, which will bestow approximately 1,000 "points of light" by the end of President Bush's term.

■ **A \$925,000 award for compensatory damages** granted to a former Accutane (isotretinoin/Roche) patient in June 1989 after a lengthy jury trial was overturned in November in a post-trial motion. The patient had alleged that after being treated with Accutane she suffered headaches, confusion, and comalike seizures that led to hospitalization. The June verdict was overturned for two reasons: the court held (1) that the jury did not have adequate proof that Accutane caused the seizures the plaintiff claimed, and (2) that the prescribing physician also knew all of the relevant facts about Accutane prior to treating the plaintiff.

■ **The National Coalition on AIDS has recognized Edward N. Brandt, Jr., MD**, executive dean of the University of Oklahoma College of Medicine, by naming an annual award in his honor. The first Edward N. Brandt Jr. Award will be presented during the coalition's next annual meeting in November 1990 in Washington, DC. Dr Brandt, former US Assistant Secretary for Health, was the coalition's founding chairman in 1986. He held that position until July 1989 and remains a member of the coalition's board of directors. The committee pointed out that the federal response to AIDS began under Dr Brandt's leadership. The award will honor an outstanding corporate or business leader for accomplishments in response to the HIV epidemic.

■ **The JOURNAL is continuing to accept photographs and slides from OSMA members** for possible use on its cover. For details call the JOURNAL office, (405) 843-9571 or 1-800-522-9452.

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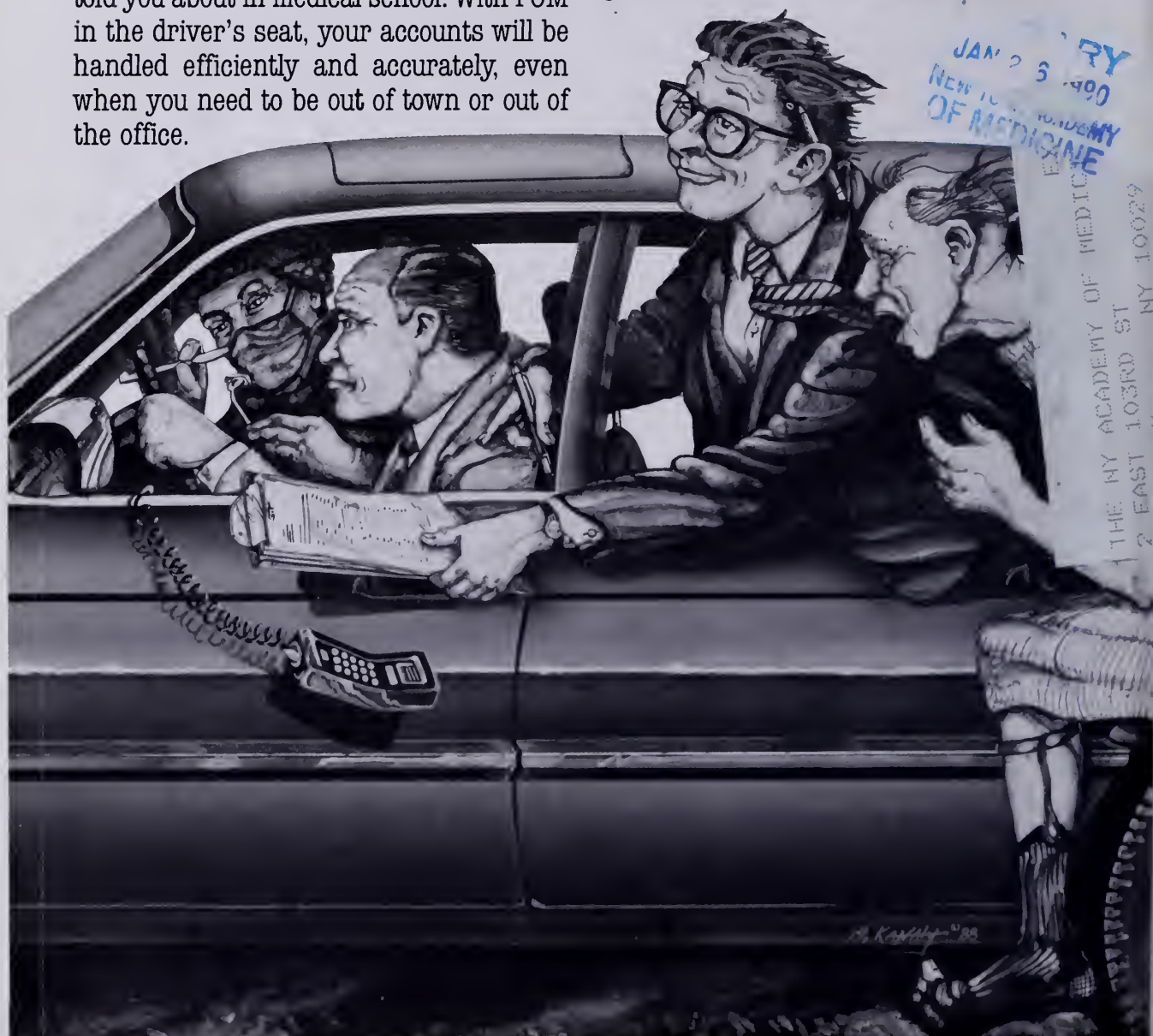
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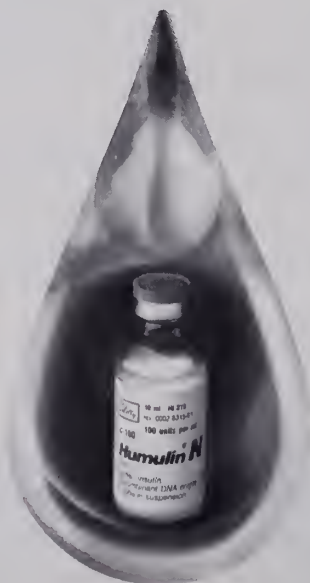
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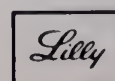


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In the 1986 USDA Continuing Survey of Food Intakes by Individuals<sup>1</sup>, women of child-bearing years reported a mean intake of 1588 calories a day. Since the American diet averages about 6-7 mg of iron per 1000 calories, it's not surprising that the same survey found that most of these women are getting about 60 percent of their RDA for iron.

Yet consider, one three-ounce serving of lean sirloin contains 2.8 mg of iron, about forty to sixty percent of which is heme iron, the most bioavailable form. In addition, the presence of beef or other meats in a meal increases the bioavailability of nonheme iron from foods such as vegetables and grains.

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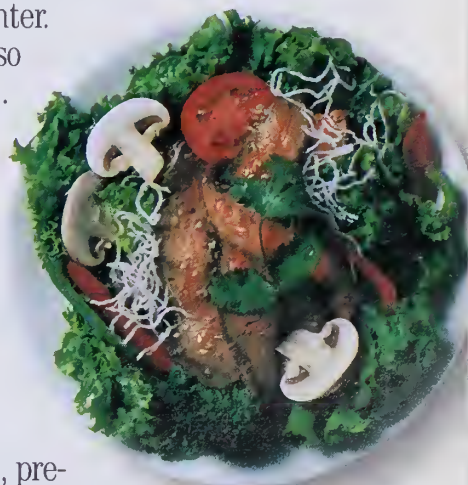
advice for almost anyone.

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5.5 g total fat	6.4 g total fat	7.6 g total fat	5.3 g total fat	7.4 g total fat	7.9 g total fat
(2.1 g saturated fat)	(2.3 g saturated fat)	(3.0 g saturated fat)	(1.8 g saturated fat)	(3.0 g saturated fat)	(3.1 g saturated fat)
59 mg cholesterol	69 mg cholesterol	65 mg cholesterol	72 mg cholesterol	76 mg cholesterol	72 mg cholesterol

Uncooked whole cuts are shown for purpose of identification.

## Composite of cooked retail cuts of beef\*

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(Saturated Fat)	(3.4 g)
Cholesterol	76 mg
Calories	189

<sup>1</sup> United States Department of Agriculture, "Nationwide Food Consumption Survey, Continuing Survey of Food Intakes by Individuals: (NFCS, CSFII)" Report No. 86-1. \*Nutrients in 3 oz. trimmed and cooked: USDA Handbook 8-13, Rev 1986.

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The JOURNAL (ISSN 0030-1876) (USPS 285-000) is the official publication of the Oklahoma State Medical Association and is published monthly under the direction of the OSMA Board of Trustees. Editorial office is at 601 Northwest Expressway, Oklahoma City, OK 73118. Second class postage paid at Oklahoma City, OK 73125.

Subscription to the JOURNAL is included in membership dues. All other subscriptions are \$30 per year. Single issues are \$3 per copy, pre-paid, subject to availability.

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# JOURNAL

OKLAHOMA STATE MEDICAL ASSOCIATION

FEBRUARY 1990

VOL. 83, NO. 2

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**ABOUT THE COVER**



"Reflections" of the Roman Templietta, Italian Tiered Garden, Philbrook Museum, Tulsa. Photograph by Louis S. Frank, MD, Oklahoma City. Art direction by Graphic Art Center, Oklahoma City.



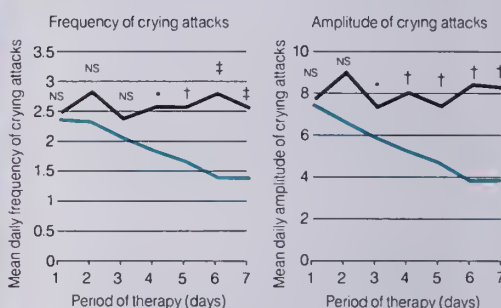
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<sup>1</sup> Kanwaljit SS, Jasbir KS. Simethicone in the management of infant colic. *Practitioner* 1988;232:508



## On Cranberry Juice

Nearly everyone practices medicine now, or at least many folks offer medical advice when a conversation turns to human complaints. When health is discussed, few can resist the opportunity to say: "You need cranberry juice," or "You need to see a specialist."

This friendly order to "see a specialist" has become today's platitude for any or all medical quandaries. It is tossed out frequently and casually, even in cases that are already under the care of the finest experts. Physicians, too, may engage in this gambit when medical progress ceases or patient dissatisfaction surfaces. Even the specialists participate in the game for the same reasons, and the word *specialist* has come to be used as if it invoked a magic wand of healing — an instant visit to the Oracle of Delphi.

The need to attend a "specialist" results from the worried patient's insecurity when seeking healing from finite human physicians. Mortals are being asked for certainty in an uncertain world. Thus it is that *any* physician who can be successfully labeled "specialist" may then be entrusted with the most desperate, or the most complex, of medical situations.

These optimistic attributions of omnipotence to the "designated specialist" have led to an unseemly desire in some physicians to become specialists for covetous goals. Without having any real interest in the specialty's subset of cases, some physicians admire the specialty's approved charges, and then select the specialty. Today's entrepreneurial physician may have a monetary temptation to become a boarded "specialist." Current medical advertising usually includes the words *Board* or *Specialist*.

While a patient's friends may — and often do — recommend their "specialists" randomly without thought of academic qualifications, the ethical physician has a moral duty to the patient to make specialist referrals primarily on qualifications. The specialist selected should be appropriate by training and personality for the needed task, and the referring physician legally is partially responsible for the ill effects of an improperly selected specialist.

So the medical profession has now assumed a responsibility to the public to train properly and to credential those physicians who will handle the difficult, complex, or anxious cases. Most physicians

handle these referrals well, but our profession now has an increasing credibility problem from the proliferation of specialty "boards."

Specialty boards have been organized and functioning for many years to delineate the specialties, recommend training and educational programs, and provide credentials to their successful diplomates. Twenty-three boards have been recognized by the American Board of Medical Specialties. Many more groups have formed as self-designated boards and presently function at variable levels of effectiveness without recognition by organized medicine. Some boards insist in high qualifications, and some are little more than special interest clubs.

Some "boards" require only the payment of a fee and perhaps a weekend retreat to bestow a "board certification" that is to the average patient indistinguishable from another board that requires three years of rigorous scientific training and a comprehensive cognitive examination for certification.

The public presently has scant knowledge to use to select either a physician or specialist. Confusion reigns among patients regarding the functional qualifications of various board specialists. Unfortunately, medical advertising exploits this confusion by sometimes overemphasizing the unrecognized self-designated board and the non-specific use of the label "specialist."

The time is past due for ethical physicians and organized medicine to unravel the confusion between the training-based AMA-recognized specialist and those others of shadowy credentials. The Oklahoma Board of Medical Licensure and Supervision has laid the foundation for a rational solution by adopting a rule that a physician may claim the label "board certified" only when certified by a member board of the American Board of Medical Specialties or equivalent.

This rule may be the lighthouse needed by the ethical physician. Certainly some objective external criterion is now needed in designating a "specialist" and in accepting ethical advertising material.

Even cranberry juice, if it is to be prescribed, should be correctly prescribed.

*Ray V. McIntyre, M.D.*



## Unrivaled Value

The Physicians Liability Insurance Company (PLICO) is almost ten years old, and it is time to review its importance to the Oklahoma State Medical Association. The company we started in 1980 has guaranteed us a stable professional liability insurance market. By contrast, physicians in other states and osteopathic physicians in Oklahoma have gone without insurance for some periods of time during the last decade and now pay premiums two to three times higher than we pay. Furthermore, they cannot buy occurrence insurance, only the inferior claims-made policy.



When we formed PLICO, none of us dreamed that the occurrence policy would vanish from the commercial marketplace, but it has. Without PLICO, we could not have preserved it. When we formed PLICO, none of us would have dreamed that commercial carriers would be attaching endorsements that restricted coverage for antitrust and restraint of trade suits; coverage that related to the activity of physicians on behalf of their associations or on hospital peer review boards; and coverage for spurious claims where drug and alcohol abuse or sexual harassment was alleged. Because we own our own insurance company we have been able to preserve all this coverage and, at the same time, conservatively save our members more than \$30,000,000.

In 1982, we added the Health and Accident Program. At that time, Blue Cross/Blue Shield had terminated their group arrangement with us and many physicians were unable to buy health insurance at any price from any market. Who would have dreamed then that the PPOs and HMOs would appear or that they would sell insurance at less than cost until many of them went broke and others were forced to increase their premiums dramatically. Who could have anticipated in 1982 that medical inflation would progress at 18% or more a year through the rest of the decade, and who could have anticipated that the Oklahoma economy would have suffered as it did. Yet all of these things did happen, and the result has been a health and accident insurance marketplace almost as fickle and unreliable as the professional liability marketplace that existed in 1980 in our state. We see health and malpractice insurance companies cancelling their insureds the

first time they file a claim, or increasing their premiums to a level tantamount to cancellation.

Only PLICO Health and Accident is left selling a policy that guarantees insurability to an OSMA member so long as you continue to pay your premium and the association votes to keep the PLICO Health Plan.

PLICO Health and Accident insurance, because of its guaranteed insurability feature, has become as unique as PLICO Professional Liability and its occurrence insurance policy. Furthermore, all PLICO insurance, whether it be professional liability or health and accident, is sold at cost to OSMA members. It is one of the tremendous benefits that we enjoy from our association, but it depends on us. We need to recognize the value of what we have. Had we not formed our own professional liability insurance company, the commercial market would have ruthlessly taken advantage of the hiatus in competition. Had we not formed PLICO Health, our doctors would have paid many times what they are paying now for health insurance, and only those of us whose health continued good would still be able to purchase insurance at all.

This year the cost of our professional liability insurance will not increase, but the cost of our health insurance must as medical inflation continues and premiums for all health insurers continue to rise. Don't make the mistake of cancelling your PLICO Health policy. If you do cancel, you cannot come back without providing evidence of insurability. *Only PLICO offers the unique opportunity to buy insurance without fear of cancellation or selective rating.*

None of us knows the outcome of the nationwide health insurance dilemma and the steady and dramatic increases in cost, but we can be assured that as long as we have PLICO, we can protect ourselves against loss of our insurance or profiteering.

We have an unrivaled value in PLICO Health, but like any other enterprise, it must pay its own way. Remember what you have, *guaranteed insurability and a fair price.* Don't go back to the vicissitudes of a fickle commercial marketplace because when they cancel you or increase your premiums, you'll have to prove your insurability to come home to PLICO the second time.



# Renin-Secreting Tumors

Robert H. Roswell, MD

Hypertension resulting from a renin-secreting tumor was first reported in 1967 by Robertson et al.<sup>1</sup> Kihara and coworkers<sup>2</sup> subsequently coined the term *juxtaglomerular cell tumor* for a similar tumor in a young woman with hyperreninemic hypertension. Since the description of these first two cases, it has become clear that renin-secreting tumors of both renal and nonrenal origin can cause surgically curable hypertension. Primary reninism has been suggested as a more appropriate term for the clinical syndrome associated with renin-secreting tumors, both renal and extrarenal, whether benign or malignant.<sup>3,4</sup>

Renin-secreting tumors may be categorized as tumors arising from the juxtaglomerular apparatus of the kidney, other renal tumors which have acquired the ability to secrete renin, and tumors of extrarenal origin.

The original reports of renin-secreting tumors described tumors of the juxtaglomerular apparatus. These tumors are often referred to as renal hemangiopericytomas since they are derived from specialized pericytic cells of the afferent arteriole. However, hemangiopericytomas also may originate from extrarenal sites and secondarily involve the kidney; thus *juxtaglomerular cell tumor* appears to be a more accurate name for renin-secreting tumors arising from the juxtaglomerular apparatus. To date, only

22 cases of this type of tumor have been reported in the literature.<sup>4,5,6</sup> A variety of other tumors also have been reported to produce renin, resulting in the development of the same clinical syndrome associated with juxtaglomerular cell tumors. Found in this category are a number of renal tumors including Wilms' tumor,<sup>7-10</sup> renal cell carcinoma,<sup>11-13</sup> and mesoblastic nephroma,<sup>14</sup> as well as several nonrenal tumors including ovarian and paraovarian carcinoma,<sup>15-17</sup> oat cell<sup>18</sup> and adenocarcinoma<sup>19</sup> of the lung, pancreatic adenocarcinoma,<sup>20</sup> metastatic chemodectoma or glomangiosarcoma,<sup>21</sup> hepatic hamartoma,<sup>22</sup> and an orbital hemangiopericytoma.<sup>23</sup> These tumors, like juxtaglomerular cell tumors, are exceedingly rare.

## Clinical Presentation

The typical presentation of a patient with a renin-secreting tumor includes the triad of hypertension, hypokalemia, and elevated plasma renin activity. While considerable variability is present, the hypertension is usually severe with diastolic blood pressures as high as 150 mmHg. In one review of 15 patients,<sup>6</sup> the mean blood pressure was 215/141. The hypertension typically has been present for a short time prior to discovery of the tumor, but occasionally patients have been noted to be hypertensive for more than five years. Hypokalemia resulting from secondary aldosteronism also may be severe, with occasional values below 2.0 mEq/l.<sup>1</sup> Plasma renin levels are often quite elevated, varying from two to seven times the upper limit of normal in

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patients with juxtaglomerular cell tumors, and as high as 50 times the upper limit of normal in patients with extrarenal renin-secreting tumors.<sup>15</sup> Due to the large amount of inactive renin produced by some tumors, renin elevations may be even greater if assays are used which measure both inactive and active renin. A number of other clinical symptoms including thirst, polyuria, nocturia, and headache may be seen in addition to hypertension, hypokalemia, and hyperreninism, but they are neither constant nor specific.

Juxtaglomerular cell tumors most commonly occur during the second decade, and 20 of 22 cases reported occurred in individuals under age 40.<sup>4,5,6</sup> In contrast, other renin-secreting tumors, particularly those of nonrenal origin, may occur in older individuals. Both males and females are affected approximately equally,<sup>6</sup> although slightly more females have been reported with renin-secreting tumors.

## Diagnosis

The diagnosis of a renin-secreting tumor should be considered in all patients with hypokalemia, hypertension, and hyperreninemia; however, other etiologies of high renin hypertension must be excluded. These include renal artery stenosis, which is excluded by renal arteriography, and accelerated or malignant hypertension.

Several maneuvers have been utilized in an attempt to facilitate the diagnosis of a renin-secreting tumor. A number of authors have used captopril to inhibit angiotensin converting enzyme (ACE).<sup>5,24</sup> Most patients with juxtaglomerular cell tumors subjected to ACE inhibition have failed to demonstrate the expected rise in plasma renin activity, suggesting these tumors have lost the normal feedback inhibition of renin release exerted by angiotensin II. However, some patients retain renin responsiveness to ACE inhibition.

Many patients with juxtaglomerular cell tumors retain the normal postural response of plasma renin activity,<sup>5,25,26</sup> suggesting sympathetic stimuli are still operative, but again, renin unresponsiveness to postural stimulation also has been reported.<sup>24,27</sup> Similar variable responses have been seen with the administration of beta blockers, saralasin, and vasodilators. Thus, it appears that pharmacologic testing is not likely to elicit diagnostic results in this disorder.

An increased ratio of inactive to active renin secretion has been reported and suggested as a useful diagnostic finding.<sup>24</sup> However, recently a

patient has been reported with much lower inactive renin levels, casting doubt on the usefulness of this finding.<sup>5</sup> It would therefore appear that definitive diagnosis requires demonstration of the renin-secreting tumor.

## Tumor Localization

Three methods have been routinely employed in the localization of renin-secreting tumors. The first involves the demonstration of an elevated plasma renin activity in the renal vein effluent of the involved kidney during selective renal vein sampling. A plasma renin ratio of at least 1.5 to 1 of the involved to uninvolved side has been considered diagnostic. Unfortunately, several cases of confirmed juxtaglomerular cell tumors have been reported which failed to demonstrate an elevated ratio or even incorrectly localized the tumor to the contralateral kidney.<sup>6,28</sup>

The second method of tumor localization is by radiographic visualization of the tumor. Renal arteriography will usually reveal a hypovascular or avascular cortically situated tumor. Because these tumors may be less than a centimeter in size, even this technique may be inaccurate on occasion. Results may be enhanced by obtaining several oblique views of the kidney. Renal ultrasound and computerized tomography also have been found to be helpful in tumor localization as well as in excluding a renal cyst which is avascular on renal arteriography.

The third method of tumor localization is surgical exploration; however, because of the small size of some tumors, even careful palpation of the surface of both kidneys may not reveal the tumor location. Thus, preoperative localization, though difficult, is imperative for ideal patient management.

## Pathology

Juxtaglomerular cell tumors are solitary, well circumscribed tumors that are usually small, with several reported tumors less than one centimeter in diameter.<sup>29,30</sup> Most are encapsulated and cortically situated. Histologically, the tumors consist of epithelioid cells approximately 10  $\mu$ m in diameter with many endothelial-lined blood spaces.<sup>6</sup> Some tumors may contain numerous mast cells, although this is not a consistent finding.<sup>28</sup>

The diagnostic ultrastructural features of juxtaglomerular tumors are polygonal or rhomboidal granules with a crystalline matrix present in modified pericytic cells which have surrounding basal



lamina. The rhomboid granules apparently represent the immature protogranule of renin, whereas the larger, more numerous granules with an amorphous matrix and irregular shape represent the mature but less diagnostic storage form of renin.<sup>6</sup>

## Treatment

The treatment of choice for juxtaglomerular cell tumors is partial nephrectomy. If only lateralization is possible because of the small size of many juxtaglomerular cell tumors, total nephrectomy may be the only practical alternative if there is a functioning contralateral kidney. Medical treatment of renin-secreting tumors is not particularly effective since most patients have severe hypertension that is refractory to antihypertensive therapy. While a number of patients have been reported to respond to angiotensin-converting enzyme inhibition with captopril or other agents, blood pressure is rarely normalized with this type of therapy.<sup>5,24</sup> Nifedipine also has been shown to acutely lower blood pressure in a patient with a renin-secreting tumor, but long-term effectiveness of this agent has not been demonstrated.<sup>5</sup>

Following surgical removal of renin-secreting tumors, blood pressure falls rapidly to normal levels and remains normal in most cases. However, approximately 25% of patients will exhibit sustained mild hypertension,<sup>6</sup> which is apparently the result of hypertension-induced vascular damage. Following successful removal of a juxtaglomerular cell tumor, recurrence or metastasis has not been reported. Thus, the long-term prognosis for this disorder appears excellent following adequate survival therapy.

## Summary

Renin-secreting tumors are a rare but potentially curable cause of hypertension. Diagnosis is difficult but should be pursued in young patients with hypertension, hypokalemia, and hyperreninism. Tumor localization is necessary and best accomplished by careful radiographic studies. Because patients do not respond well to antihypertensive therapy including ACE inhibition, definitive treatment is surgical. □

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# Methicillin-Resistant *Staphylococcus aureus*: A Descriptive Analysis on Veterans

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Concern over complications of a potentially large outbreak of methicillin-resistant *Staphylococcus aureus* (MRSA) prompted intensive monitoring and establishment of effective communication lines between infection control practitioners, nurses, physicians, and microbiology personnel. From October, 1986, through September, 1987, 77 patients at the Veterans Administration Medical Center in Oklahoma City had MRSA. Charts were available for review on 63 of these patients. When those with charts available were reviewed, 41 patients had nosocomial (NC) and 22 had community-acquired (CA) MRSA. Of the 41 NC patients, 34 were infected (of which 17 died during hospitalization) and 7 colonized (3 died). Of the 22 CA patients, 15 were infected (4 died) and 7 colonized (2 died). Length of stay was NC-infected, mean 51.8 days; NC-colonized, 38.9 days; CA-infected, 14.9 days; and CA-colonized, 16.1 days. This study shows the importance of NC MRSA, especially as it relates to hospital costs and care of many extended stay patients.

Many Veterans Administration medical centers (VAMCs) began reporting methicillin-resistant *Staphylococcus aureus* (MRSA) around 1979 to 1980.<sup>1</sup> Although occasional isolates of MRSA have occurred at this institution since 1975 or earlier,<sup>1-7</sup> it was not until June 1986 that we noticed a dramatic

increase. Both infection, as a common immediate cause of death,<sup>8</sup> and *S aureus*, as one of the most common isolates in our patients,<sup>9,10</sup> heralded the potential for a serious outbreak. Since this was perceived as a possible long-term problem, extensive effort was exerted to set up an ongoing system for handling patients with MRSA. This report summarizes our experience with MRSA (including length of hospital stay, LOS) and was presented as a poster at the 15th Annual Educational Conference, Association for Practitioners in Infection Control, May 6, 1988, Dallas, Texas.

Our study is perhaps different from many other reports, because it was not focused on a narrowly defined hospital or community-acquired outbreak of MRSA, but rather on a primarily endemic situation.

## Materials and Methods

The VAMC in Oklahoma City is a 389-bed acute tertiary care general medical and surgical hospital serving primarily adult male patients throughout Oklahoma and north central Texas.<sup>11</sup> The study period (12 months) was from October 1986 through September 1987.

The following parameters were studied: age, sex, length of hospital stay, site of infection, transfers from nursing homes, hospital service and unit, medical history risk factors, community versus hospital acquired, infection versus colonization, primary diagnosis, mortality, and antimicrobial therapy.

This was a descriptive study of VAMC patients

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with MRSA. Of the 77 patients with MRSA, 63 for which charts were available were included and the remaining 14 were excluded. A microbiology report on MRSA from these and subsequent patients with MRSA is the subject of another paper.

Disc agar diffusion (DAD) antimicrobial susceptibility testing was used to detect MRSA from patient specimens (12) and was performed according to standard methods. Routine drugs tested were penicillin (10 units/disc), chloramphenicol (30 mcg/disc), clindamycin (2), erythromycin (15), gentamicin (10), oxacillin (1), sulfamethoxazole-trimethoprim (25), tetracycline (30), vancomycin (30), and cephalothin (30). Additional drugs tested were amoxicillin/clavulanic acid (20/10), cefoperazone (75), imipenem (10), cefotaxime (30), ticarcillin/clavulanic acid (75/10), rifampin (5), and bacitracin (10).

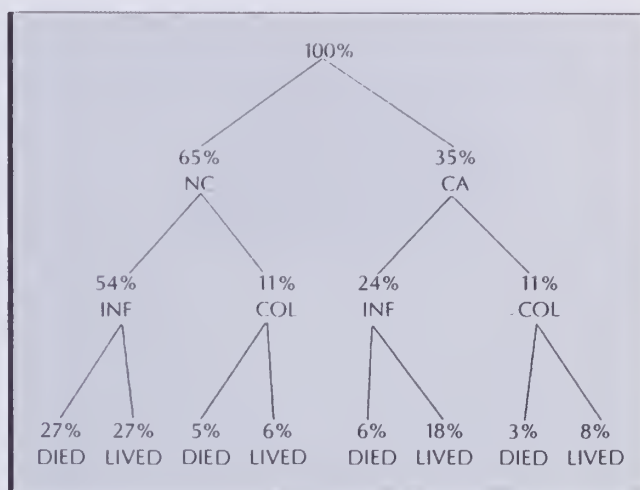
Nasal and rectal swabs were collected for MRSA screening on those patients with confirmed MRSA infestation. Their main purpose was to confirm eradication of MRSA from a given site or sites. Swab specimens were inoculated onto mannitol salt agar plates containing 6 mcg/ml of oxacillin. Plates were incubated 48 hours at 35°C prior to interpretation. Typical-appearing MRSA colonies, which fermented mannitol, were confirmed as *Staphylococcus aureus* using a tube coagulase test.

## Results

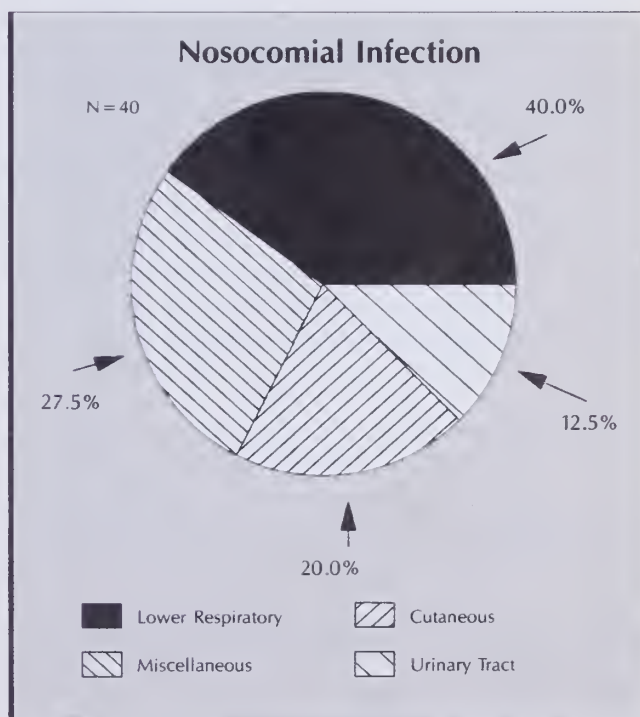
Figure 1 depicts the disposition of the 63 patients (whose charts were available for review) with MRSA. Those patients with nosocomial MRSA experienced a higher mortality than those with community-acquired MRSA. The sites at which MRSA infections were found are illustrated in Figures 2 and 3. For nosocomial infection, lower respiratory was the predominating site, while for community acquired, cutaneous was the predominant site.

Length of hospital stay (LOS) is described in Table 1. Patients with nosocomial MRSA had a much longer length of stay than those with community-acquired MRSA. Of those 41 patients with nosocomial MRSA, 83% had infections, the mean LOS was 52 days, and the mortality rate was 41%, while those 17% with colonization had a mean LOS of 39 days and a mortality rate of 8%. Of those 22 patients with community-acquired MRSA, 68% were infected, the mean LOS was 15 days, and the mortality rate was 18%; those 32% with colonization had a mean LOS of 16 days and a mortality rate of 9%.

Those patients with nosocomial infection caused by MRSA had the following health risk factors:



**Figure 1.** Disposition of 63 patients (100%) with MRSA. Abbreviations are: NC — nosocomial, CA — community acquired, INF — infected, and COL — colonized. All patients were males. Mean age for each group: nosocomial infected, 60.8 years; nosocomial colonized, 65.7; community acquired infected, 65.4; community acquired colonized, 69.0; and all patients, 63.4. There were 40 site infections in the 34 nosocomially infected patients and 16 in the community acquired infected patients.



**Figure 2.** Nosocomial MRSA infection by sites.

hypertension, chronic obstructive pulmonary disease, stroke, cancer from mixed sites, peripheral vascular disease, diabetes mellitus, and congestive heart failure.



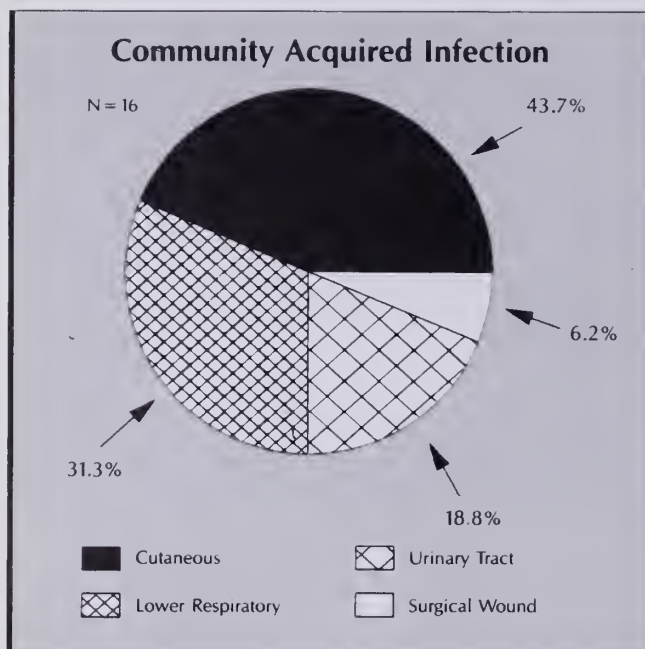


Figure 3. Community-acquired MRSA infection by sites.

An increased occurrence of MRSA prompted the formation of an MRSA subcommittee, microbiological monitoring, isolation skills laboratory, case studies, and increased educational activities. A list of routine actions taken is presented in Table 2. A form was attached to the chart of all patients with MRSA. The purpose of the form was to: remind physicians and other health care providers that the patient had MRSA and should remain in a private room until two cultures from the original site (separated by 48 hours), along with one nares and one rectal swab were negative for MRSA; explain how to order an MRSA screen in the computer; list consultants available for diagnosis and treatment, as well as resources available in epidemiology and microbiology; and emphasize the importance of good technique when caring for these patients and their secretions, etc.

Recommendations for preventing the spread of MRSA included continued case studies, maintaining MRSA segregation, initiating a program for environmental cleaning, continued microbiological monitoring, and educational activities.

## Discussion

Many of the reports on patients with MRSA deal with epidemics of hospital or community-acquired infections. However, our study describes a primarily

Table 1. Length of Hospital Stay in 63 Patients with MRSA

Category	Mean # of days		
	Admission to MRSA Culture	MRSA Culture to Discharge	Admission to Discharge
Nosocomial infected	28.08	23.79	51.80
Nosocomial colonized	26.80	12.00	38.90
Community infected	NA	NA	14.90
Community colonized	NA	NA	16.10

NA (not applicable)

endemic situation encompassing hospital and community-acquired infections and colonizations over a one-year period.

We found four studies which provided some comparable data on nosocomial infections and colonization.<sup>13-16</sup> Of the patients from these studies, 56% to 80% had infections,<sup>13-16</sup> a mortality rate of 4% to 32%,<sup>13,15</sup> and a mean LOS from 59 to 104 days.<sup>13,16</sup> Among those 20% to 44% of patients who were colonized, the mortality rate was 15% (only one reported<sup>13</sup>) and the mean LOS 43 to 65 days.<sup>13,16</sup> In our nosocomial patients, 83% were infected, the mortality rate was 41%, and the mean LOS was 52 days. Seventeen percent of our patients were colonized, with an 8% mortality rate and a 39-day LOS (Table 3). It is difficult to compare the results from the reference studies with ours, however, because other factors, such as underlying illnesses, age, sex, hospital bed location (ie, intensive care versus non-intensive care), and service (eg, medicine versus surgery) could have influenced these results. Also, comparing the LOS data may be misleading because the reference studies were done from 1981 to 1985 when a short LOS may not have been considered as important as it is now.

A study of seven intravenous drug abusers with community-acquired MRSA bacteremic infections revealed an approximate LOS of 23 days with a 14% mortality rate.<sup>17</sup> Two other studies of community-acquired MRSA outbreaks have shown that 85% yielded infections and 15% colonizations; LOS ranged from 13 days for non-drug abusers to 30 for drug abusers, and mortality ranged from 8% for drug abusers averaging 32 years old to 19% for non-drug abusers averaging 67 years old.<sup>18,19</sup> These results from the reference studies are in agreement with our

Table 2. List of Actions for MRSA

Responsible Party	Action	Day
Microbiology personnel	• Detection of MRSA on DAD plate	1
	• Notification of nurse epidemiologist	1
	• Notification of physician	1
	• Set up additional antimicrobials on DAD	1
	• Notification of microbiology director	1
	• Interpretation of additional drug results	2
	• Determination of MRSA pattern*	2
	• Notify nurse epidemiologist of MRSA pattern	2
Nurse epidemiologist	• Check with ward to ensure the patient is in a private room and ward personnel are aware of MRSA	1
	• Place special MRSA form on patient's chart†	1
Physician	• Place patient in a private room	1
	• Order MRSA screens to determine if patient is still shedding MRSA‡	—

DAD—Disc Agar Diffusion Antimicrobial Susceptibility Test  
See Materials and Methods for list of antimicrobials tested

\*Not all MRSA bacteria are the same strain

†Form content described in Results section

‡Microbiological procedures for nasal and rectal screening described in Materials and Methods section

community-acquired MRSA patients, who had a LOS of 15 days and an 18% mortality rate. Generally, community-acquired MRSA infections do not appear to be as devastating as hospital-acquired infections. Undoubtedly, other factors, such as those mentioned in the preceding paragraph, influence the morbidity and mortality of this group of infections.

It would appear to us that institutions would be well advised to develop long-term programs for handling patients with MRSA. Also, it would be interesting to determine if all categories of MRSA

infestation (ie, nosocomial versus community-acquired infections versus colonizations) should be treated equally in regards to epidemiological precautions. □

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# Cocaine Babies in Oklahoma

George P. Giacoia, MD

**Recreational use of cocaine has resulted in a dramatic increase in the incidence of fetal exposure to cocaine. Increased awareness by health professionals is needed to determine the extent of the problem in Oklahoma.**

**H**ardly a day goes by without news of cocaine seizures in different parts of the country or continuous reference to the war on drugs being waged against an elusive and itinerant enemy.

In recent years, Oklahoma has joined a national trend of illegal use of cocaine. Statistics from the Oklahoma State Bureau of Investigation reveal that in 1988, there were 1,250,165 and 7,250 dosage units of cocaine salt and alkaloid cocaine, respectively, (100 dose units = 1 gm of cocaine) seized in the state.

Women of childbearing age comprise an increasing proportion of all cocaine abusers in this country. Cocaine is now the leading substance of abuse among drug abusing pregnant women in New York City.

Figures on cocaine abuse by pregnant women in Oklahoma are not available although most major hospitals in both Tulsa and Oklahoma City have experienced a sharp increase in the number of infants exhibiting cocaine withdrawal symptoms.

Fifteen percent of women of childbearing age (15 to 44 years) cared for by the State Department of Mental Health abused illicit drugs last year. The sample size included 4430 women (77% white, 11%

black, and 10% Indian). The corresponding figures by race for cocaine use were 16%, 52%, and 11% respectively. The present report is to alert physicians in the state to the devastating effect cocaine exposure has on the lives of infants born to addicted mothers and to heighten the awareness of a potential public health crisis.

## Cocaine Formulation

Cocaine is sold as a powder of the hydrochloric (HCL) salt or as a precipitate of alkaloidal cocaine (free base or "crack"). The white powder of cocaine HCL is diluted with inert substances and is known in street jargon as "coke," "snow," or "lady." When inhaled or "snorted" intranasally, it reaches significant plasma concentration slowly because the drug produces vasoconstriction of nasal mucosa.

Alkaloidal cocaine is prepared by adding ammonia (with or without sodium bicarbonate) to the salt. This preparation, also known as free base or crack, is not destroyed by heating, and therefore can be smoked with either tobacco or marijuana. Crack is almost pure cocaine and is extremely addictive. Cocaine users employ other drugs (eg, heroin, sedatives, alcohol) to prolong the euphoric state and to minimize the extreme discomfort of the dysphoric "crash" which occurs after the euphoric state.

## Cocaine Effect in Pregnancy and Delivery

Cocaine is metabolized by plasma and liver cholinesterases to water soluble metabolites that are excreted in the urine. Plasma cholinesterase activity is much

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Table 1. Cocaine Withdrawal Syndrome Symptoms

Irritability
Hypertonia
Tremors
Loose stools
Decreased sleep
Poor feeding
Nasal stuffiness
Poor organizational response to environmental stimuli
Gaze aversion
Visual function disturbance
Sudden infant death syndrome

lower in pregnant women and their fetuses.<sup>1</sup> As cocaine has a low molecular weight and is highly soluble in water and lipid, it crosses the placenta with ease. Cocaine inhibits dopamine and norepinephrine re-uptake, leading to increased concentration of plasma catecholamines. As a result of this action, cocaine produces vasoconstriction, tachycardia, and hypertension. These effects have been produced in pregnant ewes given cocaine equivalent to a recreational use dose (0.5 to 2 µg/kg) of cocaine intravenously.<sup>2</sup> Several studies have demonstrated abruptio placenta after intravenous or intranasal use of cocaine.<sup>3</sup>

It is believed that chronic use of cocaine during pregnancy produces intrauterine growth retardation (IUGR) by decreasing placental blood flow.<sup>4</sup> It is important to note that IUGR has not been noted when cocaine abuse is confined to the first trimester of pregnancy.<sup>5</sup>

Toxic effects ascribed to intrauterine exposure of cocaine are perinatal brain infarcts, ileal atresia, and necrotizing enterocolitis. Teratogenic effects of cocaine include increased incidence of genitourinary tract malformations,<sup>6</sup> and neural tube defects.<sup>7</sup> The life-style of crack addicts also contributes to the poor reproductive outcome.

Recognition of intrauterine exposure in the newborn requires proper maternal history taking, identification of signs and symptoms of drug intoxication and/or withdrawal, and documentation of cocaine exposure by screening both mothers and infants.

A history of illicit drug intake is often difficult to obtain. Telltale signs of drug abuse, such as multiple needle marks and increased demands for narcotic analgesics by the mother, suggest a need to screen the urine of the newborn. There is a high false

negative rate in cocaine screens of urine of newborns.<sup>8</sup> Testing of meconium is a better alternative because cocaine can be detected for a longer period of time.<sup>9</sup> Determination of cocaine use by radioimmunoassay of hair is an attractive alternative since cocaine may persist in the hair of mothers and infants for several weeks.<sup>10,11</sup> Further studies are necessary to establish the usefulness and cost of this technique on a large-scale basis.

Drug addicts abuse other licit and illicit drugs in addition to cocaine; therefore, drug screens must include other drugs. The bad effects of cocaine in the newborn may be due to either intoxication or drug withdrawal, and distinction between the two syndromes is not absolute.

Signs of intoxication include: microcephaly, brain cavitory lesions, hypertension, perinatal brain infarcts, neonatal ventricular tachycardia, seizures, necrosis of fingers, hypertension, and necrotizing enterocolitis.<sup>12-15</sup> An interesting ocular abnormality in cocaine babies is dilated and tortuous iris vessels.<sup>16</sup> Drug withdrawal symptoms are rarely due to cocaine alone, as most addicts are polydrug users. Signs of cocaine withdrawal are listed in Table 1. Evaluation for signs of withdrawal should be done using a standardized scoring system such as the one reported by Finnegan<sup>17</sup> (Table 2). This scoring has been widely used for evaluating narcotic withdrawal. Newborns are scored from two hours of age onwards and usually every four hours thereafter. Total scores averaging 8 or more on three consecutive evaluations usually require pharmacologic intervention.

Cocaine-exposed newborns exhibit neurobehavioral abnormalities for 8 to 10 weeks after birth or longer. Irritability, tremulousness, and deficiencies in mood are characteristic of these infants.<sup>14,18</sup> They are not easily consoled and are often overloaded by stimulation. The latter is sometimes manifested by a phenomenon termed "gaze aversion" (closing of the eyes when the caretaker tries to make eye contact).

### Infants and Toddlers

Cocaine intoxication in infants can occur beyond the neonatal period.<sup>19,20</sup> It may be the result of passive exposure in breast-fed infants since cocaine is excreted in breast milk<sup>21</sup> or it may be due to deliberate cocaine administration as a form of child abuse.<sup>22</sup>

Infants exposed to cocaine in utero have an increased incidence of sudden infant death syndrome (SIDS). In one study, the incidence of SIDS in cocaine babies was 15%.<sup>14</sup> The long-term outcome of "cocaine babies" is currently being evaluated. The emerging

picture is worrisome. At 3 or 4 years of age, these children exhibit attention deficit, are unable to interrelate with peers, and may exhibit abnormal play patterns.<sup>21</sup> They also are extremely vulnerable to attitudes of caretakers.

The effect of the environment in which these children grow may be an important contributing factor in their abnormal development. Addicted

parents lack parental skills and also may have impaired mental functioning as a consequence of their addiction.

### The Situation in Oklahoma

The extent of the problem cannot be accurately assessed because of a paucity of information. Anecdotal reports of increased numbers of cocaine babies abound, but accurate data are missing. Social workers at the Department of Human Services describe increased referrals of infants with positive screening tests for cocaine, but no statistics are available. An anonymous prevalence study of positive urine screen for drugs in low birth weight infants is currently being conducted at Children's Hospital of Oklahoma.<sup>24</sup>

This type of prevalence study needs to be more comprehensive and be linked to areas of the state where drug abuse (specifically cocaine) is known to be high. Self-reporting studies in a population known to deny drug abuse are not very helpful. The problem is particularly acute with crack because the drug is so potent and powerful that the addiction state totally overpowers the maternal instinct to protect the unborn.

Physicians taking care of infants need to be aware of withdrawal and toxic symptomatology of cocaine to ensure prompt case finding and documentation. Most false negative urine screen tests occur because urine specimens are collected too late.<sup>8</sup> No plan of action can be formulated until the scope of the problem is clearly defined. Although it is unlikely that Oklahoma will reach the number of "cocaine babies" reported in Florida (10,000 in 1987), it is equally unlikely that the state will be spared this looming epidemic. A coordinated effort between agencies, health care providers, and state and community leaders is necessary to characterize this potentially devastating health problem. J

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Table 2. Finnegan's Neonatal Abstinence Score<sup>17</sup>

Signs and Symptoms		Score
Central Nervous System Disturbances	Excessive high pitched cry	2
	Continuous high pitched cry	3
	Sleeps <1 hour after feeding	3
	Sleeps <2 hours after feeding	2
	Sleeps <3 hours after feeding	1
	Hyperactive moro reflex	2
	Markedly hyperactive moro reflex	3
	Mild tremors disturbed	1
	Moderate-severe tremors disturbed	2
	Mild tremors undisturbed	3
	Moderate-severe tremors undisturbed	4
	Increased muscle tone	2
	Excoriation (Specify area: )	1
	Myoclonic jerks	3
	Generalized convulsions	5
Metabolic/Vasomotor/Respiratory Disturbances	Sweating	1
	Fever <101 (99-100.8°F/37.2-38.2°C)	1
	Fever <101 (38.4°C and higher)	2
	Frequent yawning (3>3-4 times/interval)	1
	Mottling	1
	Nasal stuffiness	2
	Sneezing (>3-4 times/interval)	1
	Nasal flaring	2
	Respiratory rate >60/min.	1
Gastrointestinal Disturbances	Respiratory rate >60/min. with retractions	2
	Excessive sucking	1
	Poor feeding	2
	Regurgitation	2
	Projectile vomiting	3
	Loose stools	2
	Watery stools	3
TOTAL SCORE		

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#### The Author

George P. Giacoia, MD, is professor of pediatrics and head of the Division of Neonatology, Department of Pediatrics, at the University of Oklahoma College of Medicine-Tulsa.

## Coming next month

Scheduled for publication in March are a report on dementia, its clinical evaluation and confirmation, and case reports on a double penetrating ocular injury and a 78-year-old man's survival of severe neuroleptic malignant syndrome.



## Pioneer in Medicine: Ralph Winfrey Holbrook, MD

Mary Holbrook Ferguson

Dr Holbrook worked in this new country  
where there was no doctor, no telephone, no  
electricity, poor roads, and hastily constructed  
bridges, or no bridge at all . . .

**R**alph Winfrey Holbrook, MD, born December 24, 1870, graduated from the University of St. Louis in 1899 and, on his way to California, stopped in Oklahoma Territory. He wanted to see his father, Dr Campbell Rice Holbrook, who, recently retired, had come from Kentucky to visit this new land. The train came as far as Guthrie and the young doctor hired a horse and buggy to carry him over the rough road, hardly more than a path to Perkins, in Payne County. California soon receded into a dream as Dr Holbrook worked in this new country where there was no doctor, no telephone, no electricity, poor roads, and hastily constructed bridges, or no bridge at all.

This was a pioneer challenge he found himself enjoying: the dream of a new country, people coming from all directions to build a new life, some with few possessions, and all starting together. He always felt it a privilege to work with and for these people; he knew their hopes, sorrows, ambitions, and happy contentments, as they knew his.

He became the third doctor licensed to practice in the new state of Oklahoma. During his over fifty years of practice in the Payne, Lincoln, and Noble County area, it is said he delivered more than three thousand babies. And seldom did he ever see the mother anticipate any problems. The delivery was always in the home, with the kitchen serving as hospital room and perhaps a neighbor farm wife as his assistant. Some parents asked that their child be named for him. Consequently, there were many Ralphs and Rays in Payne and the surrounding counties, not all, however, a source of pride.

One night he was called to a house in the country to help a woman in difficult labor. The sun was rising when the father stepped out onto the porch with Dr Holbrook.

"Doc," the father said, "you, my wife, and baby have had a hard time tonight. We would like to name the baby after you."

"I would consider it an honor if you would call him Ray," he answered. But it did not turn out to be

an honor; this baby who had a hard time coming into the world, left it the murdered outlaw, Ray Terrill.

On October 28, 1908 Dr Holbrook married Florence Eleanor Hicks, whose father had come from England and stayed long enough to help organize the First National Bank in Stillwater. During their marriage ceremony at the home of a friend, heavy boots were heard walking across the porch, and then a fist pounded on the door.

"Doc. Doc, you've got to come quick. My boy's been hurt bad." The boots paced back and forth as the minister said the final words. Dr Holbrook grabbed his bag and followed the man to his home. His new wife had punch and wedding cake alone with the guests. The honeymoon never came; there were other babies, and patients with long illnesses, and soon his own growing family.

In the still of the night of that time of no cars nor airplanes, Mrs Holbrook would recognize the sound of the horses' hooves and the turn of the buggy wheels on the rattling wooden bed of the Cimarron River bridge. She knew that in twenty minutes the horses would turn the corner and go to the barn (which is now on a farm south of Perkins), and she would be waiting with coffee. In times of bitter cold she had wrapped warm cloths around her husband's hands so they could slowly unbend from their grip on the horses' reins. Later, the model T Ford bounced across the bridge with its own particular rattles.

It took long hours by buggy to reach a house in the country, and there was not only the time going but the time returning. Dr Holbrook trusted his beloved horse, Sylvia, and she never failed him.

"She was smarter than most people," he would say. "She saved my life many times. At night I would wake up in the barn."

Many times while he was asleep she forded the streams or walked around the washes in the road. Once, in the grey, early morning light, he awakened to find Sylvia standing before a rushing stream, the bridge gone; she knew she couldn't make that one. After another of Oklahoma's sudden pounding rains, most of the Cimarron River bridge was washed away. Sylvia took him to the north side, and he saw on the opposite shore a man waiting for him with a team and wagon. He crawled on his hands and knees across the narrow remaining span, pushing his medicine bag before him.

In the early days of cars, he took his family jerking and bouncing over the hard, rough roads to a remote area where the Indians were having a pow wow. They knew they would be the only people there

not members of the tribe. The car was parked at a distance, and they walked to a nearby tree, sat under the cover of its branches, and watched the dances as they had been done by their ancestors, with the bonfire in the center of the ring and the moving figures shoulder to shoulder sliding their moccasined feet in an almost silent shuffle. The elders were at the drums, and the chanting measured cadence of their beat drifted through the countryside.

The women, staying together, joined in the dances later; the papooses were still carried on their backs and the mothers laid them on the ground and joined in the dancing. Later in the night came ritual dances of great emotion, building to a climax with speed and grace and the war whoops of the young men, like the cries of animals.

The costumes were not sophisticated, and were made of available materials. The women cured the hides and did the beading; the feathers were from the world around them. It was an extension of time from the past. The Holbrook family did not know they were seeing the last act, the finale of a custom of a people who were seeing their land slip away into a period which would see men reach one of their gods — the moon.

The Indians often pawned their blankets. The women wearing moccasins, long calico dresses, long braids, and dangling earrings falling from pierced ears, walked to the door of Dr Holbrook's home carrying the blankets. The men sat on the springboards of their wagons holding the reins, high-top, broad-rimmed hats atop their braids. They looked straight ahead with expressionless eyes, and the fat, from the kind of life that made impossible the constant moving and hunting of the tribe, was beginning to show.

"Take care of the blankets," Dr Holbrook said. "They will return for them."

They always did.

A new land with unorganized law enforcement made it easy for the late nineteenth and early twentieth century cattle rustlers, who corralled their stolen cattle in Horse Thief Canyon, near Goodnight, and for the bank robbers, and the highwaymen who waited on dark roads for their prey. There were real memories of the Doolin gang, and a house in Perkins was pointed to with a certain mysterious awe. "It was here a member of the Doolin gang lived." The name came out in a whisper.

When central, the telephone operator, received

## Word came that a bank had been robbed in a nearby town and the bandits, it was thought, were driving toward Perkins.

some news of importance, it was a simple matter to see that the information was spread quickly. A few well placed calls took care of that.

On this summer day, sometime shortly after the first world war, word came that a bank had been robbed in a nearby town and the bandits, it was thought, were driving toward Perkins. The town had been lucky, but it seemed its day had come. Instead of running and hiding, the residents lined the sides of Main Street and waited for the first sight of a car coming up the river road. There was a hushed silence, and occasionally a man would step out onto the road, shading his eyes and looking intently for the first sign of dust or the sound of a car motor. They were not disappointed, for come they did.

**I**t was a long, black touring car. Three men were in the back seat, two in the front. As they reached the block of the bank, they slowed down; only the clicking noise of the motor could be heard. The outlaws stared at the people and the people stared back. When they came to the Payne County Bank, the car turned left, and the outlaws looked at the building from the side. They turned, shot back into Main Street, the tires screeching, and in seconds were going north, lost in whirling dust.

There was a silence, then a shuffling of feet and voices that rose from a whisper. The Perkins bank had escaped. An audience was more powerful than a posse with guns. That night at supper Dr Holbrook sat down with his family.

"Do you know who was in town today?" he asked. And, not waiting for an answer, he continued, "Ray Terrill paid a nice, peaceful call."

In the early twenties Dr Holbrook made a call on the other side of Drumright and took his brother Arthur with him to share the long hours of the drive. As they were returning, late at night, a car came up behind them blasting its horn; with effort they pulled out of the ruts into the weeds and waited for the dust to settle.

About a half mile ahead was a sharp turn to the

left and then, perhaps two hundred feet farther ahead, a quick turn to the right onto a bridge. As the Holbrooks turned the corner, the other car reached the bridge, and in the same second fire from guns could be seen coming from either side of the road; the car ahead jerked to a stop and its occupants returned the fire. Their car lights shone on a chain stretched across the entrance to the bridge and on the bumpy, uneven slabs of wood with heavy nails jutting out. From the car and from the bushes that edged the bridge, the gunfire continued. What was a few minutes seemed a long time — then there was silence. In the black night there were only the fading yellow lights looking across the bridge.

The Holbrooks sat there, not moving, not speaking. Then, they left their car and walked up to the Paige touring car. Slumped over the steering wheel was a dead man, and in the bushes were the bandits with, so far as they knew, pointed guns. They slowly moved forward, found one of them, and pulled him toward the light; from a wound in his stomach blood oozed with each weak heartbeat. He looked at them, and they saw the set of death come into his eyes. There had to have been two, but the other one got away.

Leaving the body there in the faint, dimming lights, the Holbrooks drove to the sheriff's office. Their lives had been saved by a driver in a hurry. The days of the hijacker were real.

Every generation sees the world with its wide-open eyes balanced by the perspective of its surroundings, experiences, and prejudices. Perhaps these Payne County pioneers stood with freedom from all past associations and walked on land that had only felt the soft step of the Plains Indians and the pounding hooves of literally millions of buffalo; the waving grass that had greeted them had never been torn from its soil. They had what will never again exist in this country — land that had been waiting for them since creation. J

### The Author

Mary Holbrook Ferguson, the daughter of Dr Ralph Holbrook, lives in Oklahoma City.



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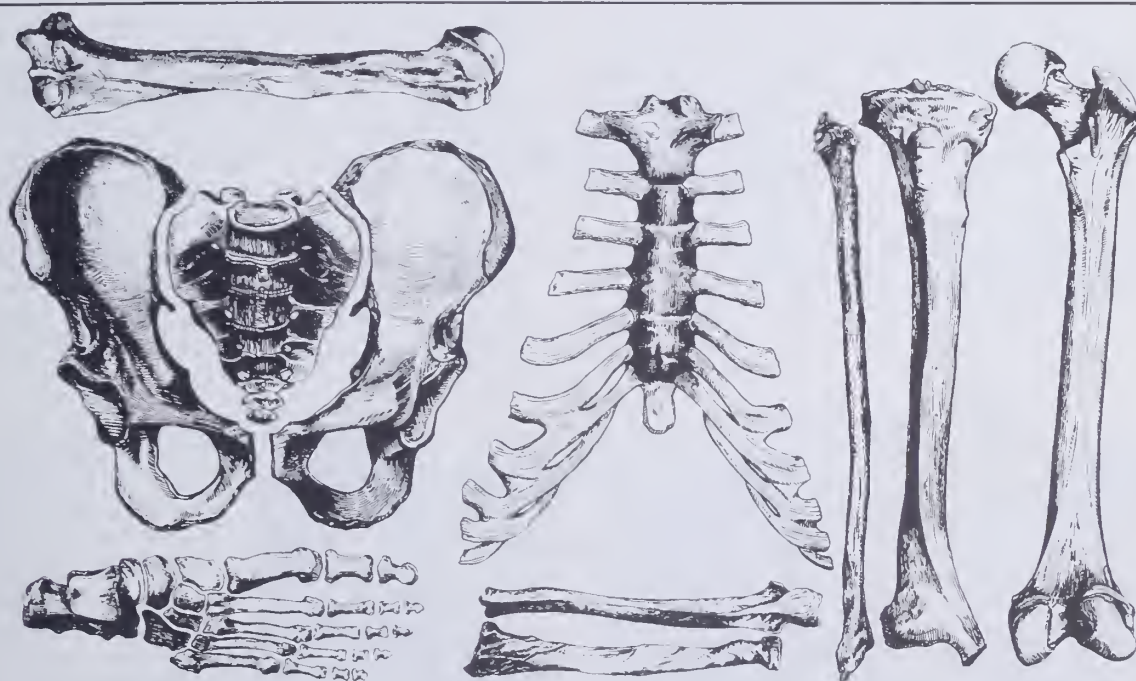
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## Special Guest in May

**AMA trustee from Minnesota to speak at OSMA Annual Meeting**

A member of the American Medical Association's Board of Trustees is scheduled to address the OSMA House of Delegates at their Annual Meeting in May.



W. E. Jacott, MD

William E. Jacott, MD, a family physician from North Oaks, Minn, will attend the Oklahoma City meeting and speak at the Closing Session on Saturday, May 5.

Dr Jacott was elected to the AMA Board of Trustees in June 1989. After 22 years of private practice in Duluth, Minn, he was named assistant vice-president for health sciences at the University of Minnesota in Minneapolis in 1987.

First elected in 1981 and twice re-elected to the AMA Council on Medical Education, Dr Jacott was the chairman of the council from 1985 to 1987. In addition to serving on the council, Dr Jacott represented the AMA on the Accreditation Council for Continuing Medical Education and has served on the Liaison Committee on Medical Education, the American Board of Medical Specialties, the National

Board of Medical Examiners, and the Board of the American Association for the Accreditation of Laboratory Animal Care.

In addition to serving on numerous Minnesota Medical Association committees, Dr Jacott has been active in three county medical societies and the Minnesota Academy of Family Physicians.

Elected president of the Federation of State Medical Boards from 1986 to 1987, Dr Jacott served for eleven years on the Minnesota State Board of Medical Examiners and as president from 1979 to 1981.

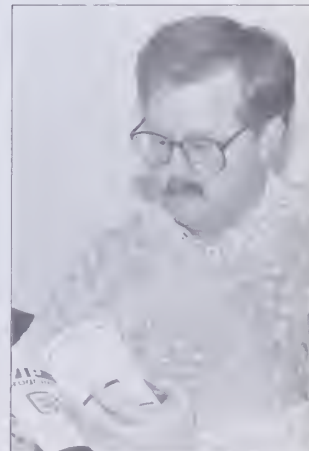
Dr Jacott earned his medical degree at the University of Minnesota Medical School. He is a diplomate of the American Board of Family Practice and a member of the American Academy of Family Physicians. He is an associate professor in the Department of Family Practice and Community Health at his alma mater.

The 84th Annual Meeting of the OSMA House of Delegates will be held at the Marriott Hotel in Oklahoma City. The three-day meeting begins Thursday, May 3.

**The Jackson County Medical Society**

held its regular meeting December 12 in Altus. OSMA President-Elect Perry A. Lambird, MD, representing the state organization, was present to discuss current issues and concerns.

Among those attending were (l to r) Altus physicians Phillip N. Kingery, J.H. Lee, and Joe L. Leverett.





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## AMA mailing applications to MDs for Physician's Recognition Award

Next month, all physicians in Oklahoma who do not have valid certificates for the American Medical Association's Physician's Recognition Award will receive an application form from the AMA. The form is sent as a service to physicians, both AMA members and non-members, who are interested in receiving recognition of their continuing medical education (CME) activities.

The Physician's Recognition Award (PRA) was established by the AMA House of Delegates in 1968. Its purpose is to encourage participation in continuing medical education and to recognize physicians who complete acceptable CME programs. About 24,000 physicians apply for the PRA each year, and about 73,000 have valid certificates. The certificate is a tangible way for physicians to show they have engaged in continuing medical education to maintain their knowledge and skills.

Certificates suitable for framing are provided for one year, two years, or three years of effort. One-year certificates require a total of 50 hours of continuing medical education, 20 of which must be AMA PRA Category 1. Two-year certificates require 100 hours of education, 40 of which must be AMA PRA Category 1. Three-year certificates require 150 hours of education, 60 of which must be AMA PRA Category 1. The different certificates make it possible for physicians to report completed education to the AMA and to another organization, such as a state licensing board, that requires reporting at different intervals. In addition, there are reciprocity arrangements with 17 other organizations; that is, the PRA certificate will be provided if the CME requirements of those organizations are met.

The certificate is accepted by a number of states as evidence that continuing education required for reregistration of the license has been completed. Participation both in lectures and demonstration activities and in self-learning activities can be reported. Activities that meet educational standards established by the AMA can be designated "AMA PRA Category 1" by educational institutions accredited for continuing medical education. State medical societies, medical specialty societies, medical schools, and hospitals are among the institutions accredited for continuing education.

For more information call Arthur Osteen, PhD, American Medical Association, (312) 645-4677. □

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## Newborn Hearing Screening Program adds physician notification



Since its implementation in August 1983, more than 250,000 infants have been screened through the Newborn Hearing Screening Program (NHSP) of the Oklahoma State Department of Health (OSDH). Now

two new features have been developed to encourage and assist families of infants identified at risk for hearing loss to seek further evaluation. The features include a toll-free 800 number families can utilize to contact the NHSP, and a physician notification system.

Crucial to the success of the NHSP is a questionnaire completed by a health professional at the time of the baby's birth. This tool identifies infants at risk for hearing loss by means of specific criteria pre-

sented in the child's family history and/or present during the antepartum, intrapartum, and postpartum course. An infant may be at risk for hearing impairment if a positive response is noted to one or more of these risk factors: familial history of childhood hearing loss, congenital perinatal infection, anatomic malformation of the head or neck, low birth weight, severe asphyxia, hyperbilirubinemia, or serious illness at birth.

When the infant is approximately 4 months old, a computer generated notice/response card is sent to parents of at-risk infants. This notice recommends that the baby's hearing be evaluated and that such an assessment be scheduled with their physician, an audiologist or speech and hearing facility, or their local county health department. A card listing a statewide toll-free 800 telephone number is now included with the parent notification packet. Families may call 1-800-766-2223 if they have questions regarding either the notice or their infant's hearing. The telephone is answered by NHSP personnel with a pediatrician, audiologist, speech/language pathologist, and other health professionals available to respond to calls.

In early 1990, a revised Newborn Hearing Screening Questionnaire will seek the name and address of the at-risk infant's attending physician. When the baby is approximately 3½ months old, and just prior to notification of the family, the physician will receive a notice which includes the infant's name and birthdate as well as the mother's name and address. It also will list the risk factors present at the time of birth. The physician may retain this notification and at the time of the infant's next office visit, discuss the importance of having the baby's hearing evaluated. The physician also may encourage the family to return the self-addressed and stamped parent notification/response card when the child's hearing status has been determined.

The NHSP maintains an updated referral and resource directory which lists facilities that provide comprehensive audiologic and/or otologic assessment and management for infants identified as at risk for hearing loss. Questions regarding referrals or the program are invited. Physicians may contact the program by calling the Pediatrics Division, (405) 271-4471, or the new NHSP toll-free number, 1-800-766-2223.

### IN MEMORIAM

#### 1989

John Hoyle Carlock, Jr., MD	January 19
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Mary Edna Sippel, MD	April 10
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Howard Choice Martin, MD	July 23
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## Confessions of a Bicycle Junkie

by Robert B. Zumwalt, MD

There are six bicycles in my garage. While this is not as many as my doctor friend Fred Weber has in his garage, it is still lots of bicycles.

My brother Jerry (who usually rides most of the annual week-long *Tulsa World* "Free Wheel ride" across Oklahoma with my wife and me) says that we are bike fanatics. He knows us well, so I should not argue. Still, *fanatic* seems like a strong term. Enthusiastic, yes; fanatic, I don't know.

I got my first bike when I was about 10 years of age. I earned it selling the *Saturday Evening Post* and other Curtis publications. I sent off a small amount of money and lots of "brownies" and waited seven or eight of the longest weeks I have ever known. When it arrived, I learned by trial and error to ride, and then I was off.

I was free.

Until that time, my parents always knew where I was, but with my bike I could go almost anywhere in town and be back in less time than it would take for them to be worried.

Now, 52 years later, I still get that feeling of freedom and exhilaration when I push off on my racing, touring, or all-terrain bike. I find that I am in contact with my surroundings, seeing, smelling, hearing, feeling the air as I fly through it. I've always enjoyed active sports such as skiing, sailing, and hiking, and I find that biking gives me the best sensations of all.

On our first bike tour in Europe we rode from Munich to Vienna by way of Salzburg, and it misted or rained lightly for four days. But I was happy. It was cool, my pancho kept me mostly dry (happy bikers sweat), and the scenery was lovely.

As we were approaching the Swiss border, a large tour bus blew past me, its windows fogged over and the people inside warm-looking blurs. My first thought was how unfortunate those people were being "trapped" inside that bus until I realized that they must think me an idiot and when I laughed about this, I was glad they were well down the road because I knew they would not understand.

Since that trip five years ago, we have returned to Europe three times to ride in Germany, Switzerland, Italy, France, Holland, and Luxembourg. We also have biked in New Zealand for three weeks, and in about half of the states in the United States.



Bob Zumwalt (left) and his wife, Marilyn, led the Oklahoma Bicycle Society's "Grand Tour" in June 1989. This drawing was presented to them by the OBS in appreciation for their efforts.

We even took our all-terrain bikes on a cruise to the Caribbean and the Panama Canal, and enjoyed riding on several of the islands. The tour director would not let us get off the boat in Panama. He said that we didn't have the right kind of bike for that country, and when I asked what kind of bike we would need, he said, "One with a rear gunner."

I enjoy riding alone, but I enjoy riding with others even more. The people at bicycle events are interesting, open, and fun. They range in age from the teens to the 70s, but whatever their age, they act young.

I and many of the more enthusiastic riders have found that biking helps prevent depression and irritability. Regularly riding fairly long distances, 40 to 60 miles, makes us feel better. Biking is fun and sociable.

I think biking fits in with cross-country skiing, square dancing, and aerobic exercise as an enjoyable physical fitness activity, but it is more available and



## Bicycle Junkie *(continued)*

easier to fit into a schedule. It is certainly gaining in popularity.

If you haven't ridden a bicycle recently, or if you've never ridden a "really good" bike, then you will be surprised how much they have changed and how well they work. Like using a tennis racket or a golf club, you have to practice before the proper biking technique will become natural to you.

A good bicycle will cost about \$400, and you still get value up to a thousand dollars. After that the bikes get prettier (to one knowledgeable about the subject), but they don't get much better. This is cheap if you ride, but too much if you are going to let the tires rot in the garage. Still, you won't enjoy riding as much unless you have a good bicycle.

More important than price, however, is having a bicycle that is the proper size for you (most people get bikes that are too large) and a dealer that will help you maintain the bike until you learn how. I can barely change a tire on my car, but I can take my bike apart and put it back together (I don't, because the guys at the shop can do it twice as fast, and much, much cheaper, but I can). Knowing this gives me a feeling of security and pleasure.

Most of the people I know who enjoy biking have wives who also enjoy biking. Sometimes the wife is the better biker, but if she is significantly slower than her husband, she can almost always find some-

one who rides at her speed. I enjoy riding with my wife, Marilyn; we ride together about half the time, but we both enjoy riding with other riders, also.

Our overseas tours have been of the deluxe type, with stopovers in good and interesting hotels with excellent meals. These tours attract the older and more affluent riders, often physicians. Most of the people on these tours have been from either the east or west coast.

Marilyn and I have ventured into the bicycle tour business ourselves. A year ago we worked up a bike tour on the Natchez Trace and convinced eleven of our biking friends to share expenses. This last June we planned and led the annual tour for the Oklahoma City bike club into and over the northern Ozark Mountains. Several of the people in the group said it was the best tour they have ever had, but they may have just been thankful to get out of the hills.

Who knows, someday I may even stop practicing medicine and do touring full time. When I do, you can say you knew me when I was just a doctor.

*[Dr Zumwalt is a family practitioner in Tecumseh.]*

□

## REACTION TIME

### Enid physician enjoys editor's tale of war and remembrance

*To the Editor:* Thank you for your editorial ["A Cold December Night"] in the December, 1989, issue of the JOURNAL of the Oklahoma State Medical Association.

Your recalling "this rustic event" and sharing it with the readers of the JOURNAL was truly heartwarming. Despite all the intrusions from government and other third parties too numerous to count, the opportunities we as physicians have for service to our fellow man are truly unique.

Thanks for the reminder.

—David S. Russell, MD  
Enid

### CALL FOR RESOLUTIONS

All resolutions to be presented to the Oklahoma State Medical Association House of Delegates Annual Meeting must be received in the executive offices no later than thirty (30) days prior to the meeting. This year's meeting will be May 3-5, 1990, at the Marriott Hotel in Oklahoma City.

County medical societies or individuals wishing to submit resolutions should mail them to OSMA, 601 Northwest Expressway, Oklahoma City, OK 73118. Should you need assistance in drafting such resolutions, please contact the executive offices.

RESOLUTIONS MUST BE SUBMITTED  
ON OR BEFORE APRIL 2, 1990

**Therapeutics in the Elderly.** By Jeffrey C. Delafuente and Ronald B. Stewart. Baltimore: The Williams and Wilkins Co., 1988. Pages 352. Price not given.

The approach used in this book is very appealing. The text is divided into two major parts:

Part I consists of seven chapters and is an excellent introduction to the social, psychological, and medical aspects of aging. The first chapter is a general review of the physical and biological changes associated with aging and provides the reader with 152 references. Each of the chapters is very well done. There are some minor omissions, perhaps deliberate, but the book also contains two excellent additions not found in enough textbooks concerning the elderly: the chapter on long-term care facilities and pharmacy services, and another chapter on alternatives to institutionalization.

Part II deals with drug absorption, disposition, response, and toxicity in a very thorough fashion. The other 16 chapters of Part II are devoted to disease manifestations, pathophysiology, etiology, and treatment involving different organs and organ systems

patterned in the classical medical format. This book thus broadens the reader's knowledge regarding the physiology of aging, problems of the aged, and manifestations of diseases in the elderly, as well as an in-depth approach to the therapy of the problems. *Therapeutics in the Elderly* is likely to find its place as a textbook for students, physicians in training, and practitioners interested in the care of the elderly.

—John A. Mohr, MD  
Oklahoma City

**Tough Decisions. A Casebook on Medical Ethics.** By John M. Freeman and Kevin McDonnell, New York: Oxford University Press, 1987. Pages 181. Price not given.

The authors provide a casebook for the study and discussion of ethical issues exemplified through a wide spectrum of disease states. Ages of the patients range from newborns to 83 years old and problems vary from a newborn with hydranencephaly to the elderly with cardiac arrest.

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## Book Shop (continued)

ical and moral decision making are followed by one describing applied ethical theory and a chapter outlining a process approach to moral decision making.

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This book is not a compendium of bioethics; focus remains on the decision maker and emphasizes that the virtue of the decision lies in the process by which it is made.

—Dixon N. Burns, MD  
Tulsa

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## DEATHS

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### Don Lee Dycus, MD 1929 - 1989

Former Norman physician Don Lee Dycus, MD, died December 6, 1989, in Morrilton, Ark. A native of Sulphur, he served with the US Navy from 1946 to 1950. Dr Dycus, an obstetrician-gynecologist, earned his medical degree from the University of Oklahoma in 1957 and established his practice in Norman a year later. He moved to Morrilton in August 1989.

### Monroe Ruework Jennings, MD 1921 - 1989

Monroe R. Jennings, MD, Claremore, died October 27, 1989. A family practitioner, Dr Jennings was born in Beckley, WV. He served as a medic with the US Coast Guard during World War II and in 1950 was graduated from Duke University School of Medicine, Durham, NC. A diplomate of the American Academy of Family Practice, Dr Jennings moved to Claremore in 1955.

### Sylvester Robert Shaver, MD 1905 - 1989

OSMA Life Member Sylvester R. Shaver, MD, died December 16, 1989. A retired Oklahoma City otolaryngologist, Dr Shaver was born in Quinton, Okla, and was a 1937 graduate of the University of Oklahoma School of Medicine.

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Classified ads are \$25 each up to 50 words, plus 50 cents for each additional word. A word is one or more characters bounded by spaces. Box numbers will be assigned upon request and add 6 words to the total. Ads will not be accepted on the telephone.

All ads must be prepaid. Mail ad with payment to: OSMA Journal, 601 Northwest Expressway, Oklahoma City, OK 73118. Ads must be in the Journal office by the first of the month preceding the month of publication.

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### Physicians Wanted

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**WANTED: Two orthopedic surgeons, with or without subspecialty training,** who enjoy general orthopedics, to join a multispecialty group of nineteen. (No Fellows in town at present.) This Kansas community of 40,000 close to a metropolitan area, has been designated medically underserved in orthopedics. Excellent clinic facilities with physical therapists in-house. Call Jo Grimm 1-800-638-6942.

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**Oklahoma, Ada: Emergency staff position in well-equipped Valley View Regional Hospital.** Annual ED volume is 12,000. Open 24 hours/seven days per week. We offer competitive remuneration, occurrence malpractice insurance coverage, CME, licensing, and certification reimbursement. Will need ACLS. Ada is 80 miles from Oklahoma City and has a population of 35,000. Oklahoma East Central University is nearby. Contact Ron Hamilton, Spectrum Emergency Care, Inc., P.O. Box 27352, St. Louis, MO 63141; 1-800-325-3982, ext. 3049.

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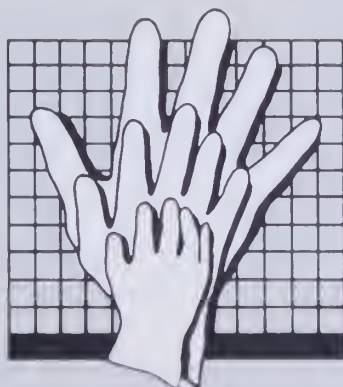
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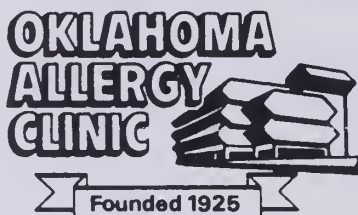
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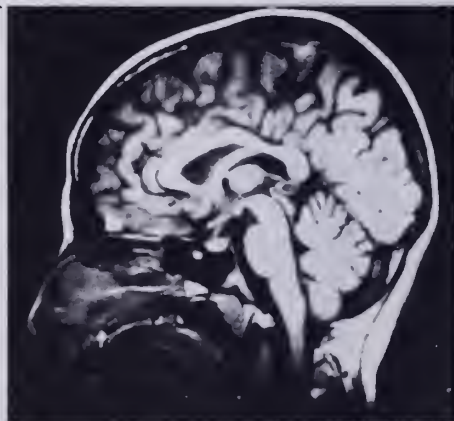
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**T**he Resident Physician and Medical Student auxiliaries are, for the most part, in the background of the medical profession. There are probably a few of you out there who don't realize these organizations exist. Although the resident physician and medical student auxiliary groups go quietly along year after year, they have a tremendous impact on those involved in them.

The Medical Student Auxiliary has been an organized group since 1957. The late Mrs George Garrison (Ann) began the group and continued as its sponsor until her death a few years ago. She took great pride in this organization and was a source of wisdom for all the spouses who were fortunate enough to meet her.

The Resident Physician Auxiliary began its current run in 1983. It was started by three former Medical Student Auxiliary members whose husbands started their residencies that year. The group has continued since then with liaisons from the Oklahoma State Medical Association Auxiliary and the county medical auxiliaries. There are resident physician and medical student spouses active in medical auxiliary in Enid, Tulsa, Norman, and Oklahoma City with sponsors from the respective county medical auxiliaries. Members receive mailings from the AMA Auxiliary and as a group are involved in medical legislation, insurance, billing, education, and research.

While these groups have liaisons/sponsors from their county medical auxiliary, they remain strong due to member participation and leadership. These spouses come from various walks of life but all have at least one common need: the need for support and fellowship from others going through the same trials and tribulations of being the spouse of someone in

medical training. And no one other than a medical spouse can offer the empathy, understanding, and support necessary to succeed during these high-pressure training years.

After all, do you recall having the patience and energy after 36 hours of "call" to come home and listen to your spouse tell of the latest household/career/child-rearing horror stories? Many of us would not have made it through without the support of our comrades-in-arms.

As a result of membership in the resident physician and medical student auxiliaries, many feel more prepared for the "real life" experiences of the physician and are able to deal more effectively with the stresses and pressures experienced by a medical family. The transition to county and state auxiliary involvement is also much smoother.

Our state is fortunate to have strong resident physician and medical student auxiliaries. The officers of these groups are organized, civic-minded leaders and are directing their groups in a positive manner. Both groups are modelled after the Oklahoma State Medical Association Auxiliary, with attention focused on fund-raising, community service, and fellowship. The groups are supported financially through membership dues. A monthly meeting is held with informational and educational programs planned for members.

These groups are stepping stones to the county and state levels of medical auxiliary. They are the mortar for the bricks which make up the building known as American Medical Association Auxiliary. Without the mortar, the building cannot stand.

—Jan Sullivan  
RP/MSS Committee Chair

■ **Carl R. Bogardus, Jr., MD**, director of the Division of Radiation Therapy at the University of Oklahoma Health Sciences Center in Oklahoma City, has been elected 1989-90 president of the Society of Therapeutic Radiology and Oncology.

■ **F. Daniel Duffy, MD**, Tulsa, was recently named chair-elect designee by the Board of Governors of the American College of Physicians (ACP). Dr Duffy, ACP governor for Oklahoma since 1987, will become chair-elect at the college's Annual Session in April. In his new position he will serve as vice chair of the Governor's Executive Committee. Dr Duffy is a professor and chairman of the Department of Internal Medicine at the University of Oklahoma College of Medicine-Tulsa.

■ **The new editor-in-chief designate of *Otolaryngology-Head and Neck Surgery*** is J. Gail Neely, MD, Oklahoma City. He assumed the post last month and will serve for one year. In January 1991, he will begin a three-year term as editor-in-chief of the specialty journal. Dr Neely is chairman of the Department of Otorhinolaryngology at the University of Oklahoma Health Sciences Center.

■ **In a new health policy brief entitled "Impact of AIDS on Oklahoma Hospitals,"** the Center for Health Policy Research of the Oklahoma Medical Research Foundation summarizes the toll AIDS is exacting from the state's hospitals. Included are figures on incurred and projected losses, average per patient charges, national and regional comparisons, and information about distribution of funding sources for patients.

The study found, for example, that an average of 9.8 patients with AIDS occupied Oklahoma hospital beds each day in 1988 and accounted for an estimated .125% of patient days and .085% of all Oklahoma hospital admissions in 1988; net losses were \$73 per patient day and \$850 per admission. Copies of the complete study are available from the Center for Health Policy Research for a prepaid fee of \$10.

■ **Videotapes of loss prevention seminars** sponsored by the Physicians' Liability Insurance Company (PLICO) can now be obtained on loan from the Oklahoma State Medical Association (OSMA). Currently available are "Loss Prevention for Physi-

cians" by William Ginsburg, MD, JD; "Anesthesiology and Loss Prevention" by Ellison Pierce, MD; and "Listening: A Loss Prevention Skill" and "Physicians Guide to Loss Prevention" by OSMA General Counsel Ed Kelsay. Additional titles will be added in the near future. The tapes (VHS format only) may be checked out for one week at a time. Inquiries should be directed to Debbie Thurmond at the OSMA, (405) 843-9571 or 1-800-555-9452.

■ **Earl S. Elliott, Jr., MD**, has been named recipient of the Oklahoma City Clinic's 1989 Blesh-Rucks Award. The annual award recognizes the outstanding personal characteristics and professional achievements of one of the clinic's physicians. An internist, Dr Elliott has been with the clinic since 1976 and is now director of the clinic's Managed Health Care.

■ **Older adults who want to improve their driving skills** can do so in a course being offered by the O'Donoghue Rehabilitation Institute (ORI), Oklahoma City, and the American Association of Retired Persons. The eight-hour refresher, entitled "55 Alive/Mature Driving Course," is designed to help drivers 50 years of age or older improve their skills and prevent traffic accidents. A \$7 registration fee covers the two half-day sessions, all course materials, and refreshments. Graduates of the course, to be held March 15 and 16 at ORI, are eligible for insurance rate reductions. For more information, call ORI, (405) 271-3692.

■ **Duncan physician Robert J. Weedn, MD**, FACS, was recently elected president of the Oklahoma Chapter of the American College of Surgeons. He is a graduate of the University of Oklahoma College of Medicine.

■ **A recommendation to adopt the Investment and Retirement Program** of the American Medical Association was tabled by OSMA trustees in November, rather than approved, as was reported in the January JOURNAL. A preliminary transcription of minutes from the November 19 board meeting showed the recommendation from the Council on Member Services had been approved, when in fact a motion to table was approved. The board was to make its final decision at a later date. □





# VASOTEC

## ENALAPRIL MALEATE MSD

VASOTEC is available in 2.5-mg, 5-mg, 10-mg, and 20-mg tablet strengths.

**Contraindications:** VASOTEC\* (Enalapril Maleate, MSO) is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor.

**Warnings:** Angioedema. Angioedema of the face, extremities, lips, tongue, glottis and/or larynx has been reported in patients treated with ACE inhibitors, including VASOTEC. In such cases, VASOTEC should be promptly discontinued and the patient carefully observed until the swelling disappears. In instances where swelling has been confined to the face and lips, the condition has generally resolved without treatment, although antihistamines have been useful in relieving symptoms. Angioedema associated with laryngeal edema may be fatal. **Where there is involvement of the tongue, glottis, or larynx likely to cause airway obstruction, appropriate therapy, e.g., subcutaneous epinephrine solution 1:1000 (0.3 mL to 0.5 mL), should be promptly administered.** (See ADVERSE REACTIONS.)

**Hypotension:** Excessive hypotension is rare in uncomplicated hypertensive patients treated with VASOTEC alone. Patients with heart failure given VASOTEC commonly have some reduction in blood pressure, especially with the first dose, but discontinuation of therapy for continuing symptomatic hypotension usually is not necessary when dosing instructions are followed. Caution should be observed when initiating therapy. (See DOSAGE AND ADMINISTRATION.) Patients at risk for excessive hypotension, sometimes associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death, include those with the following conditions or characteristics: heart failure, hypotension, high-dose diuretic therapy, recent intensive diuresis or increase in diuretic dose, renal dialysis, or severe volume and/or salt depletion of any etiology. It may be advisable to eliminate the diuretic (except in patients with heart failure), reduce the diuretic dose, or increase salt intake cautiously before initiating therapy with VASOTEC in patients at risk for excessive hypotension who are able to tolerate such adjustments. (See PRECAUTIONS, Drug Interactions and ADVERSE REACTIONS.) In patients at risk for excessive hypotension, therapy should be started under very close medical supervision and such patients should be followed closely for the first two weeks of treatment and whenever the dose of enalapril and/or diuretic is increased. Similar considerations may apply to patients with ischemic heart disease or cardiovascular disease in whom an excessive fall in blood pressure could result in a myocardial infarction or cerebrovascular accident. If excessive hypotension occurs, the patient should be placed in the supine position and, if necessary, receive an intravenous infusion of normal saline. A transient hypotensive response is not a contraindication to further doses of VASOTEC, which usually can be given without difficulty once the blood pressure has stabilized. If symptomatic hypotension develops, a dose reduction or discontinuation of VASOTEC or concomitant diuretic may be necessary.

**Neutropenia/Agranulocytosis:** Another ACE inhibitor, captopril, has been shown to cause agranulocytosis and bone marrow depression, rarely in uncomplicated patients but more frequently in patients with renal impairment, especially if they also have a collagen vascular disease. Available data from clinical trials of enalapril are insufficient to show that enalapril does not cause granulocytosis at similar rates. Foreign marketing experience has revealed several cases of neutropenia or agranulocytosis in which a causal relationship to enalapril cannot be excluded. Periodic monitoring of white blood cell counts in patients with collagen vascular disease and renal disease should be considered.

**Precautions: General Impaired Renal Function:** As a consequence of inhibiting the renin-angiotensin-aldosterone system, changes in renal function may be anticipated in susceptible individuals. In patients with severe heart failure whose renal function may depend on the activity of the renin-angiotensin-aldosterone system, treatment with ACE inhibitors, including VASOTEC, may be associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death.

In clinical studies in hypertensive patients with unilateral or bilateral renal artery stenosis, increases in blood urea nitrogen and serum creatinine were observed in 20% of patients. These increases were almost always reversible upon discontinuation of enalapril and/or diuretic therapy. In such patients, renal function should be monitored during the first few weeks of therapy.

Some patients with hypertension or heart failure with no apparent preexisting renal vascular disease have developed increases in blood urea and serum creatinine, usually minor and transient, especially when VASOTEC has been given concomitantly with a diuretic. This is more likely to occur in patients with preexisting renal impairment. Dosage reduction and/or discontinuation of the diuretic and/or VASOTEC may be required.

**Evaluation of patients with hypertension or heart failure should always include assessment of renal function.** (See DOSAGE AND ADMINISTRATION.)

**Hyperkalemia:** Elevated serum potassium (>5.7 mEq/L) was observed in approximately 1% of hypertensive patients in clinical trials. In most cases these were isolated values which resolved despite continued therapy. Hyperkalemia was a cause of discontinuation of therapy in 0.28% of hypertensive patients. In clinical trials in heart failure, hyperkalemia was observed in 3.8% of patients, but was not a cause for discontinuation.

Risk factors for the development of hyperkalemia include renal insufficiency, diabetes mellitus, and the concomitant use of potassium-sparing diuretics, potassium supplements, and/or potassium-containing salt substitutes, which should be used cautiously, if at all, with VASOTEC. (See Drug Interactions.)

**Surgery/Anesthesia:** In patients undergoing major surgery or surgery under anesthesia with agents that produce hypotension, enalapril may block angiotensin II formation secondary to compensatory renin release. If hypotension occurs and is considered to be due to this mechanism, it can be corrected by volume expansion.

**Information for Patients:**

**Angioedema:** Angioedema, including laryngeal edema, may occur especially following the first dose of enalapril. Patients should be so advised and told to report immediately any signs or symptoms suggesting angioedema (swelling of face, extremities, eyes, lips, tongue, difficulty in swallowing or breathing) and to take no more drug until they have consulted with the prescribing physician.

**Hypotension:** Patients should be cautioned to report lightheadedness, especially during the first few days of therapy. If actual syncope occurs, the patients should be told to discontinue the drug until they have consulted with the prescribing physician.

All patients should be cautioned that excessive perspiration and dehydration may lead to an excessive fall in blood pressure because of reduction in fluid volume. Other causes of volume depletion such as vomiting or diarrhea may also lead to a fall in blood pressure. Patients should be advised to consult with the physician.

**Hyperkalemia:** Patients should be told not to use salt substitutes containing potassium without consulting their physician.

**Neutropenia:** Patients should be told to report promptly any indication of infection (e.g., sore throat, fever) which may be a sign of neutropenia.

**NOTE:** As with many other drugs, certain advice to patients being treated with enalapril is warranted. This information is intended to aid in the safe and effective use of this medication. It is not a disclosure of all possible adverse or intended effects.

**Drug Interactions:**

**Hypotension: Patients on Diuretic Therapy:** Patients on diuretics and especially those in whom diuretic therapy was recently instituted may occasionally experience an excessive reduction of blood pressure after initiation of therapy with enalapril. The possibility of hypotensive effects with enalapril can be minimized by either discontinuing the diuretic or increasing the salt intake prior to initiation of treatment with enalapril. If it is necessary to continue the diuretic, provide close medical supervision after the initial dose for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and DOSAGE AND ADMINISTRATION.)

**Agents Causing Renin Release:** The antihypertensive effect of VASOTEC is augmented by antihypertensive agents that cause renin release (e.g., diuretics).

**Other Cardiovascular Agents:** VASOTEC has been used concomitantly with beta-adrenergic-blocking agents, methyldopa, nitrates, calcium-blocking agents, hydralazine, prazosin, and digoxin without evidence of clinically significant adverse interactions.

**Agents Increasing Serum Potassium:** VASOTEC attenuates potassium loss caused by thiazide-type diuretics. Potassium-sparing diuretics (e.g., spironolactone, triamterene, or amiloride), potassium supplements, or potassium-containing salt substitutes may lead to significant increases in serum potassium. Therefore, if concomitant use of these agents is indicated because of demonstrated hypokalemia, they should be used with caution and with frequent monitoring of serum potassium. Potassium-sparing agents should generally not be used in patients with heart failure receiving VASOTEC.

**Lithium:** Lithium toxicity has been reported in patients receiving lithium concomitantly with drugs which cause elimination of sodium, including ACE inhibitors. A few cases of lithium toxicity have been reported in patients receiving concomitant VASOTEC and lithium and were reversible upon discontinuation of both drugs. It is recommended that serum lithium levels be monitored frequently if enalapril is administered concomitantly with lithium.

**Pregnancy—Category C:** There was no fetotoxicity or teratogenicity in rats treated with up to 200 mg/kg/day of enalapril (33 times the maximum human dose). Fetotoxicity, expressed as a decrease in average fetal weight, occurred in rats given 1200 mg/kg/day of enalapril but did not occur when these animals were supplemented with saline. Enalapril was not teratogenic in rabbits. However, maternal and fetal toxicity occurred in some rabbits at doses of 1 mg/kg/day or more. Saline supplementation prevented the maternal and fetal toxicity seen at doses of 3 and 10 mg/kg/day, but not at 30 mg/kg/day (50 times the maximum human dose).

Radioactivity was found to cross the placenta following administration of labeled enalapril to pregnant hamsters. There are no adequate and well-controlled studies of enalapril in pregnant women. However, data are available that

show enalapril crosses the human placenta. Because the risk of fetal toxicity with the use of ACE inhibitors has not been clearly defined, VASOTEC\* (Enalapril Maleate, MSO) should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Postmarketing experience with all ACE inhibitors thus far suggests the following with regard to pregnancy outcome: Inadvertent exposure limited to the first trimester of pregnancy has not been reported to affect fetal outcome adversely. Fetal exposure during the second and third trimesters of pregnancy has been associated with fetal and neonatal morbidity and mortality.

When ACE inhibitors are used during the later stages of pregnancy, there have been reports of hypotension and decreased renal perfusion in the newborn. Oligohydramnios in the mother has also been reported, presumably representing decreased renal function in the fetus. Infants exposed *in utero* to ACE inhibitors should be closely observed for hypotension, oliguria, and hyperkalemia. If oliguria occurs, attention should be directed toward support of blood pressure and renal perfusion with the administration of fluids and pressors as appropriate. Problems associated with prematurity such as patent ductus arteriosus have occurred in association with maternal use of ACE inhibitors, but it is not clear whether they are related to ACE inhibition, maternal hypertension, or the underlying prematurity.

**Nursing Mothers:** Milk in lactating rats contains radioactivity following administration of <sup>14</sup>C enalapril maleate. It is not known whether this drug is secreted in human milk. Because many drugs are secreted in human milk, caution should be exercised when VASOTEC is given to a nursing mother.

**Pediatric Use:** Safety and effectiveness in children have not been established.

**Adverse Reactions:** VASOTEC has been evaluated for safety in more than 10,000 patients, including over 1000 patients treated for one year or more. VASOTEC has been found to be generally well tolerated in controlled clinical trials involving 2987 patients.

**HYPERTENSION:** The most frequent clinical adverse experiences in controlled trials were: headache (5.2%), dizziness (4.3%), and fatigue (3%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in controlled clinical trials were: diarrhea (1.4%), nausea (1.4%), rash (1.4%), cough (1.3%), orthostatic effects (1.2%), and asthenia (1.1%).

**HEART FAILURE:** The most frequent clinical adverse experiences in both controlled and uncontrolled trials were: dizziness (7.9%), hypotension (6.7%), orthostatic effects (2.2%), syncope (2.2%), cough (2.2%), chest pain (2.1%), and diarrhea (2.1%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in both controlled and uncontrolled clinical trials were: fatigue (1.8%), headache (1.8%), abdominal pain (1.6%), asthenia (1.6%), orthostatic hypotension (1.6%), vertigo (1.6%), angina pectoris (1.5%), nausea (1.3%), vomiting (1.3%), bronchitis (1.3%), dyspnea (1.3%), urinary tract infection (1.3%), rash (1.3%), and myocardial infarction (1.2%).

Other serious clinical adverse experiences occurring since the drug was marketed or adverse experiences occurring in 0.5% to 1% of patients with hypertension or heart failure in clinical trials in order of decreasing severity within each category:

**Cardiovascular:** Cardiac arrest, myocardial infarction or cerebrovascular accident, possibly secondary to excessive hypotension in high-risk patients (see WARNINGS, Hypotension); cardiac arrest, pulmonary embolism and infarction, rhythm disturbances, atrial fibrillation, palpitation.

**Digestive:** Ileus, pancreatitis, hepatitis or cholestatic jaundice, melena, anorexia, dyspepsia, constipation, glossitis, stomatitis.

**Musculoskeletal:** Muscle cramps.

**Nervous/Psychiatric:** Depression, confusion, ataxia, somnolence, insomnia, nervousness, paresthesia.

**Urogenital:** Renal failure, oliguria, renal dysfunction (see PRECAUTIONS and DOSAGE AND ADMINISTRATION).

**Respiratory:** Bronchospasm, rhinorrhea, sore throat and hoarseness, asthma, upper respiratory infection.

**Skin:** Herpes zoster, urticaria, pruritus, alopecia, flushing, hyperhidrosis.

**Special Senses:** Blurred vision, taste alteration, tinnitus.

A symptom complex has been reported which may include a positive ANA, an elevated erythrocyte sedimentation rate, arthralgia/arthritis, myalgias, fever, serositis, vasculitis, leukocytosis, eosinophilia, photosensitivity rash, and other dermatologic manifestations.

**Angioedema:** Angioedema has been reported in patients receiving VASOTEC (0.2%). Angioedema associated with laryngeal edema may be fatal. If angioedema of the face, extremities, lips, tongue, glottis, and/or larynx occurs, treatment with VASOTEC should be discontinued and appropriate therapy instituted immediately. (See WARNINGS.)

**Hypotension:** In hypertensive patients, hypotension occurred in 0.9% and syncope occurred in 0.5% of patients following the initial dose or during extended therapy. Hypotension or syncope was a cause for discontinuation of therapy in 0.1% of hypertensive patients. In heart failure patients, hypotension occurred in 6.7% and syncope occurred in 2.2% of patients. Hypotension or syncope was a cause for discontinuation of therapy in 1.9% of patients with heart failure. (See WARNINGS.)

**Clinical Laboratory Test Findings:**

**Serum Electrolytes:** Hyperkalemia (see PRECAUTIONS), hyponatremia.

**Creatinine, Blood Urea Nitrogen:** In controlled clinical trials, minor increases in blood urea nitrogen and serum creatinine, reversible upon discontinuation of therapy, were observed in about 0.2% of patients with essential hypertension treated with VASOTEC alone. Increases are more likely to occur in patients receiving concomitant diuretics or in patients with renal artery stenosis. (See PRECAUTIONS.) In patients with heart failure who were also receiving diuretics with or without digitalis, increases in blood urea nitrogen or serum creatinine, usually reversible upon discontinuation of VASOTEC and/or other concomitant diuretic therapy, were observed in about 1% of patients. Increases in blood urea nitrogen or creatinine were a cause for discontinuation in 1.2% of patients.

**Hemoglobin and Hematocrit:** Small decreases in hemoglobin and hematocrit (mean decreases of approximately 0.3 g/dL and 1.0 vol %, respectively) occur frequently in either hypertension or heart failure patients treated with VASOTEC but are rarely of clinical importance unless another cause of anemia exists. In clinical trials, less than 0.1% of patients discontinued therapy due to anemia.

**Other (Causal Relationship Unknown):** In marketing experience, rare cases of neutropenia, thrombocytopenia, and bone marrow depression have been reported. A few cases of hemolysis have been reported in patients with G6PD deficiency.

**Liver Function Tests:** Elevations of liver enzymes and/or serum bilirubin have occurred.

**Dosage and Administration: Hypertension:** In patients who are currently being treated with a diuretic, symptomatic hypotension occasionally may occur following the initial dose of VASOTEC. The diuretic should, if possible, be discontinued for two to three days before beginning therapy with VASOTEC to reduce the likelihood of hypotension. (See WARNINGS.) If the patient's blood pressure is not controlled with VASOTEC alone, diuretic therapy may be resumed if the diuretic cannot be discontinued, an initial dose of 2.5 mg should be used under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, Drug Interactions.)

The recommended initial dose in patients not on diuretics is 5 mg once a day. Dosage should be adjusted according to blood pressure response. The usual dosage range is 10 to 40 mg per day administered in a single dose or in two divided doses. In some patients treated once daily, the antihypertensive effect may diminish toward the end of the dosing interval. In such patients, an increase in dosage or twice-daily administration should be considered. If blood pressure is not controlled with VASOTEC alone, a diuretic may be added.

Concomitant administration of VASOTEC with potassium supplements, potassium salt substitutes, or potassium-sparing diuretics may lead to increases of serum potassium (see PRECAUTIONS).

**Dosage Adjustment in Hypertensive Patients with Renal Impairment:** The usual dose of enalapril is recommended for patients with a creatinine clearance > 30 mL/min (serum creatinine of up to approximately 3 mg/dL). For patients with creatinine clearance ≤ 30 mL/min (serum creatinine ≥ 3 mg/dL), the first dose is 2.5 mg once daily. The dosage may be titrated upward until blood pressure is controlled or to a maximum of 40 mg daily.

**Heart Failure:** VASOTEC is indicated as adjunctive therapy with diuretics and digitalis. The recommended starting dose is 2.5 mg once or twice daily. After the initial dose of VASOTEC, the patient should be observed under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, Drug Interactions.) If possible, the dose of the diuretic should be reduced, which may diminish the likelihood of hypotension. The appearance of hypotension after the initial dose of VASOTEC does not preclude subsequent careful dose titration with the drug, following effective management of the hypotension. The usual therapeutic dosage range for the treatment of heart failure is 5 to 20 mg daily given in two divided doses. The maximum daily dose is 40 mg. Once-daily dosing has been effective in a controlled study, but nearly all patients in this study were given 40 mg, the maximum recommended daily dose, and there has been much more experience with twice-daily dosing. In addition, in a placebo-controlled study which demonstrated reduced mortality in patients with severe heart failure (NYHA Class IV), patients were treated with 2.5 to 40 mg per day of VASOTEC, almost always administered in two divided doses. (See CLINICAL PHARMACOLOGY, Pharmacodynamics and Clinical Effects.) Dosage may be adjusted depending upon clinical or hemodynamic response. (See WARNINGS.)

**Dosage Adjustment in Patients with Heart Failure and Renal Impairment or Hyponatremia:** In patients with heart failure who have hyponatremia (serum sodium < 130 mEq/L) or with serum creatinine > 1.6 mg/dL, therapy should be initiated at 2.5 mg daily under close medical supervision. (See DOSAGE AND ADMINISTRATION, Heart Failure, WARNINGS, and PRECAUTIONS, Drug Interactions.) The dose may be increased to 2.5 mg b.i.d., then 5 mg b.i.d. and higher as needed, usually at intervals of four days or more, if at the time of dosage adjustment there is not excessive hypotension or significant deterioration of renal function. The maximum daily dose is 40 mg.

For more detailed information, consult your MSD Representative or see Prescribing Information, Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, PA 19386.

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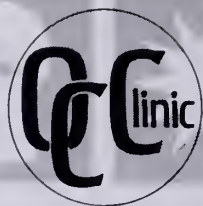
# JOURNAL

OKLAHOMA STATE MEDICAL ASSOCIATION  
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The JOURNAL (ISSN 0030-1876) (USPS 285-000) is the official publication of the Oklahoma State Medical Association and is published monthly under the direction of the OSMA Board of Trustees. Editorial office is at 601 Northwest Expressway, Oklahoma City, OK 73118. Second class postage paid at Oklahoma City, OK 73125.

Subscription to the JOURNAL is included in membership dues. All other subscriptions are \$30 per year. Single issues are \$3 per copy, pre-paid, subject to availability.

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# JOURNAL

OKLAHOMA STATE MEDICAL ASSOCIATION

MARCH 1990

VOL. 83, NO. 3

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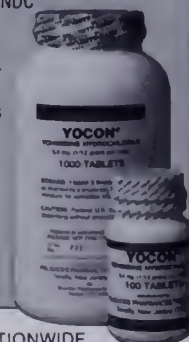
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### References:

1. A. Morales et al., New England Journal of Medicine: 1221, November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27:2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128: 45-47, 1982.

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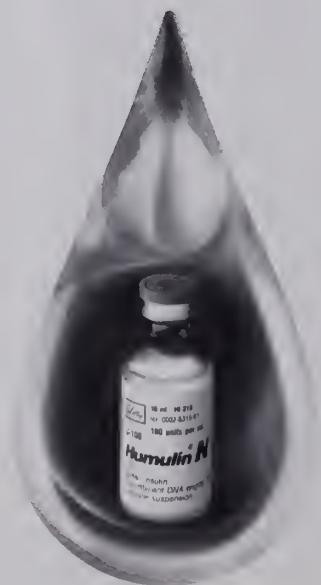
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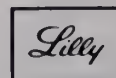


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## Dawn in the East

Many historic human events evolve so slowly that years may pass before their significance is appreciated. But in the autumn of 1989, in eastern Europe, six communist governments in a few short weeks abandoned their monolithic party control of their nations. Triggered by economic problems and assisted by the miracle of instant modern communications, these momentous events were immediately recognized by the whole world as a thunderous signal of markedly improved relations between millions of captive people and their governments.

The practical economic effects of the revisions may take time to bear fruit, but the people and political leaders already agree these changes are a political earthquake of a cataclysmic nature. A new era is being born before our eyes.

The past forty years of stalemate based on a fear of atomic destruction has been dubbed the Pax Atomicus, and these jarring events may mark an end to this bloody deadlock and the opening of a new level of East-West coexistence. A healthy catharsis of the decades-long balance of power by terror may have occurred during these tumultuous weeks. Major geopolitical consequences seem to be assured, but there is an added message from these events: **SOCIALISM FAILS!**

After 150 years of existence, and after opportunities in large, small, agrarian, and industrial nations, after empowerment by communist, fascist and monarchist governments, *socialism has failed to work!* In 1989 everyone saw clearly that socialism cannot provide basic services without significant loss of human freedom and creativity. These signal events of 1989 in eastern Europe have broadcast the spiritual bankruptcy of socialism as a philosophy of human interaction. The whole world now knows in their bones that socialism is an inferior and enslaving philosophy of governance.

These revealing European events should lead us Americans to introspection, to a seance of communion with our Founding Fathers, to reiterate those ideals of economic and political organization in the United States that promote freedom of the people.

The dismal Pax Atomicus gave the United States enough physical security to let Congress experiment with a variety of mandated, half-baked government programs. Without an agreed goal of socialism before us, Congress has enacted a maze of socialistic concepts onto our people. Government has grown hugely, and oppressively, and expensively. Government now dominates our society; we have drifted piecemeal into the collective socialism that eastern Europe now repudiates.

Today government regulation is strangling the health care industry. Medical technology still advances, but care-giving withers away. The practice of medicine is no longer an artistic science seasoned with altruism, but a Nintendo game using ICD-9 and CPT-4 blips in a rat race for economic survival; the patients are mere pawns in the game. Our health care industry and medical profession have inadvertently drifted into the centrally micromanaged system that has repeatedly proven inept in socialized countries.

Now that the defects of European socialism have been vividly exposed, we Americans should dedicate ourselves to the excision of the socialistic elements in our present medical care administration. We must persevere in a commitment to eliminate political coercion in health care delivery. The sunset of socialism is visible on the horizon; let us rededicate ourselves to a practice of medicine free of government interference.

*Ray V. M. Intyre, M.D.*





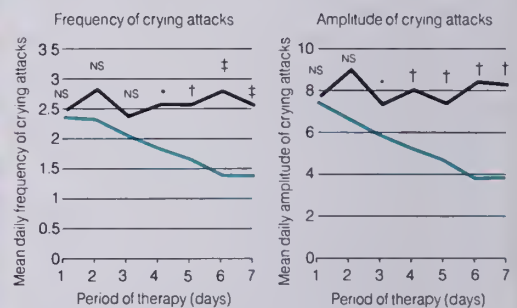
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<sup>1</sup> Kanwaljit SS, Jasbir KS. Simethicone in the management of infant colic. *Practitioner* 1988;232:508

## The Challenge of Rural Health Care

In the past decade there has been a growing crisis in rural health care that has been associated with the closing of more than 160 rural hospitals. While initially these hospital closings and diminishing access to health care services in rural areas were occurring with little congressional attention, now the rural health care crisis has become one of the most challenging health care issues facing Congress.



According to the American Hospital Association, nearly two-thirds of all rural hospitals are operating in the red and 600 or more are in danger of having to close. When we lose our hospitals in small communities, we lose not only access to acute care but also nursing care, home health care, physician's care, jobs, and the ability to attract new businesses and industries to our communities. Affordable, accessible health care is vital to keeping rural communities healthy both physically and fiscally.

A major deficiency contributing to the problem is that nationally it has been estimated we have a shortage of about 1,800 rural primary care physicians, and as many as 25% of rural physicians may retire or leave their communities within the next five years. Many factors contribute to this situation in rural areas, including such problems as shrinking populations, increasing economic problems, and higher concentrations of uninsured and poor people in these areas.

However, a major factor in securing physicians for and keeping them in rural locations is the way the federal government reimburses hospitals and doctors for treating Medicare patients. On the average, payments received by rural hospitals are 30% smaller than payments received by urban hospitals for providing the same medical services. Rural physicians receive 40% smaller payments, on the average. One of our OSMA members who practices in Ada, who also does a few surgical procedures in

McAlester, receives 40% more for the same surgical procedure when it is done in McAlester as compared to when it is done in Ada.

This differential in payment is compounded by the fact that Medicare revenue is more important to the rural hospitals and physicians since the elderly account for a larger percentage of the total population in rural areas as compared to urban. This means that a larger proportion of patients served by rural providers are covered by Medicare. Since the DRG systems require a large volume of Medicare patients to gain a profit, the rural hospitals are more likely to incur a loss, especially if they have one or two high cost cases for which they receive minimal reimbursement under the prospective payment system.

Oklahoma's Physician Manpower Training Commission (PMTTC) has worked to improve the balance of physician manpower distribution in the state, both by type of practice and by geographic location. They have put an emphasis on recruiting and retaining physicians in rural areas. To help determine what factors would help in this effort, the PMTTC conducted a survey recently of physicians currently practicing in rural areas of the state.

Those who responded considered the following especially important: admitting privileges at a hospital; reputation, quality, and financial stability of their practice and the hospital; assurance of back-up coverage; spouse acceptance of area; quality of elementary and secondary schools; and continuing medical education. Surprisingly, geographic location of practice was not considered as important as might have been expected. Eighty-two percent felt that it is necessary to provide financial incentives to recruit physicians to practice in rural areas, either through medical school loans or practice start-up loans.

The recently implemented RBRVS reimbursement system will benefit rural areas. It should provide higher rates of reimbursement to family practitioners and other primary care physicians and will help to eliminate the bias against rural physicians in the existing reimbursement system. OSMA

has actively lobbied with AMA for doing away with or minimizing any geographic differential as well as abolishing the urban/rural differential.

Since we represent all physicians in the state, we cannot support a plan that would reduce payment to urban physicians to be able to increase reimbursement (budget-neutral plan). We have supported and will continue to support proposals for policy changes that would tend to ensure a strong rural health care system such as those proposed by the Rural Health Care Coalition. This group is composed of more than

100 members of Congress from both political parties and is led by Oklahoma's own US Representative Mike Synar. We must strongly support legislation that will attract, protect, and retain physicians in rural areas. We also should be more pro-active and come forth with more creative solutions based on our data and experiences.

A handwritten signature in dark ink, appearing to read "Mike Synar", followed by a horizontal line and a small mark.



# Dementia: The Importance of Clinical Evaluation, Autopsy Confirmation, and Research

Roger A. Brumback, MD; Richard W. Leech, MD; Judy Carella, MA, MPH; Gary D. Miner, PhD

Because of the increasingly elderly population, dementia is a major public health problem, currently affecting over 50,000 Oklahomans at an approximate cost of one billion dollars annually. The marked overlap in symptomatology between Alzheimer's disease and other primary central nervous system degenerations makes antemortem diagnosis based on a clinical assessment tentative at best, with error rates of 25% commonly reported. Accurate diagnosis is of vital importance in improving our understanding of these illnesses, evaluating potential therapies, and providing appropriate genetic counseling to family members. Direct neuropathologic examination at autopsy is currently the only reliable method for assuring accurate diagnosis and should be undertaken in all demented patients.

As the American population ages, progressive cerebral dysfunction, or dementia, is becoming one of the most important dilemmas confronting the medical community. Estimates have suggested that dementia affects about 5% of individuals at age 65

years, increasing to near 30% by age 80 years; at any time about 15% of the population over the age of 65 years is moderately or severely demented.<sup>1-3</sup> This means that there are over 3 million demented individuals in the United States and over 50,000 in the state of Oklahoma alone. The rapidly increasing population of patients with dementia creates an enormous economic burden on medical resources in Oklahoma — approximately one billion dollars annually for custodial care.

Almost half of the cases of "dementia" in the elderly are the result of nondegenerative causes and may be treatable and remediable, if not completely reversible<sup>4,5</sup> (Tables 1 and 2). Every patient with dementia syndrome requires full medical-neurological appraisal. The clinical diagnosis of Alzheimer's disease in a living patient is by exclusion — that is, dementia with an appropriate course in the absence of any other explanation. Therefore, the diagnosis of Alzheimer's disease requires a careful search for other causes. More importantly, a number of potentially treatable disorders can produce the dementia syndrome<sup>6</sup> (Table 2). Neuropsychological testing provides a formal means of verifying and quantitating the degree of dementia and establishing a baseline for following the progress of the disorder; however, no pathognomonic neuropsychological

From the Neuropathology Section, Department of Pathology, University of Oklahoma Health Sciences Center and the Oklahoma Medical Research Foundation, Oklahoma City, and The Alzheimer's Foundation, Tulsa.

Direct correspondence to Roger A. Brumback, MD, Department of Pathology, University of Oklahoma Health Sciences Center, PO Box 26901, Oklahoma City, OK 73190.

**Table 1. DSM-III-R Criteria for Dementia & Primary Degenerative Dementia\***

- I. Dementia
  - A. Social or occupational disability secondary to loss of intellectual function
  - B. Memory impairment
  - C. At least one of the following:
    1. Loss of abstracting ability
    2. Impaired judgment
    3. Aphasia, apraxia, agnosia, constructional impairment or personality change
  - D. No delirium
  - E. Either:
    1. Laboratory or physical examination evidence demonstrating a cause of the brain dysfunction, or
    2. Assurance that other potential explanations for the behavioral change have been excluded
- II. Primary Degenerative Dementia
  - A. Dementia (as outlined above)
  - B. Insidious onset and uniformly progressive course
  - C. Exclusions of all other specific types of dementia

\*Adapted from the DSM-III-R<sup>2</sup>

profile of Alzheimer's disease has been established. In addition, there are currently no laboratory tests with results diagnostic of Alzheimer's disease, and generally, in uncomplicated Alzheimer's disease, urine and serum studies are unremarkable.

The functions of the laboratory assessment of the demented patient are to exclude disorders that may mimic Alzheimer's disease and to identify conditions (such as pneumonia, urinary tract infections, electro-

lyte imbalance, or anemia) that may exacerbate the deficits of the patient with Alzheimer's disease. Table 3 provides a listing of studies useful in the diagnostic evaluation of the demented patient. Various metabolic and endocrine derangements can produce a dementia, as can the infection of tertiary neurosyphilis and infection with *Borrelia burgdorferi* (the agent of Lyme disease).<sup>7</sup> The human immunodeficiency virus (HIV) has a strong neurotropism producing slowly progressive white matter degeneration with consequent dementia. The differential diagnostic possibilities in dementia also include intracranial tumors, chronic subdural hematoma, chronic exposure to toxins such as lead and mercury, and medications and drugs of multiple types. Depressive pseudodementia may be associated with focal or diffuse neurological dysfunction and yet be completely reversible with antidepressant therapy.<sup>8-10</sup> Cerebrovascular disease also may produce a picture of dementia as the process progresses.

Only after carefully obtaining a detailed history; performing a detailed mental status, physical, and neurological examination; and obtaining appropriate minimum laboratory studies (see Table 3) and additional evaluations as indicated should the physician consider the diagnosis of primary central nervous system degenerative disorder. Otherwise, the label "dementia" (meaning progressive degenerative dementia, usually Alzheimer's disease) will be given to patients whose cerebral dysfunction is potentially reversible, thereby precluding further treatment. Once the diagnosis of a treatable demen-

**Table 2. Examples of Potentially Treatable Causes of Dementia**

Deficiencies of vitamin B<sub>12</sub>, folate, niacin (pellagra), thiamine (Wernicke-Korsakoff syndrome), or other vitamins  
 Zinc and/or copper deficiency  
 Endocrine disorders (hypo- or hyperthyroidism, hypo- or hyperparathyroidism)  
 Neurosyphilis, tertiary *Borrelia* infection, HIV infection (AIDS)  
 Electrolyte imbalance  
 Normal pressure hydrocephalus  
 Cerebrovascular disease ("multi-infarct dementia")  
 Hypoglycemia  
 Renal or hepatic failure  
 Lupus cerebritis (systemic lupus erythematosus)  
 Pulmonary disease with chronic hypoxia and/or hypercarbia  
 Drug or medication-induced mental disturbances  
 Neoplasms (primary or secondary tumors or as a remote effect)  
 Affective disorder (depressive pseudodementia)  
 Epilepsy  
 Subdural hematoma  
 Toxin exposure (lead, arsenic, mercury, manganese, organic toxins)

**Table 3. Diagnostic Evaluation of the Demented Patient**

History from patient & relative, or friend  
 Mental status examination (including Blessed-Folstein Mini Mental State Exam)  
 Physical examination with vital signs  
 Neurological examination  
 CT, MRI, and/or SPECT scan (brain scan)  
 Thyroid function tests  
 Serum vitamin B<sub>12</sub> and folic acid levels  
 Chest x-ray, electrocardiogram (EKG)  
 Complete blood count, urinalysis, VDRL and FTA-ABS, blood glucose, BUN, calcium, phosphate, albumin, HIV titer, Lyme titer, electrolytes, alkaline phosphatase, ESR, SGOT, SGPT  
 Drug levels  
 Toxic screen (including heavy metals)  
 Electroencephalogram  
 Lumbar puncture\*

\*Optional in some situations



**Table 4. Examples of Neurodegenerative Dementias Requiring Autopsy Confirmation for Definitive Diagnosis**

Alzheimer's disease
Pick's disease
Huntington's disease
Parkinson's disease
Multisystem atrophy
Binswanger's disease/multi-infarct
Cerebral amyloid angiopathy
Granulomatous angiitis
Creutzfeldt-Jakob disease
Progressive multifocal leukoencephalopathy
Polyglucosan body disease

tia has been excluded, it is still important for the clinician to develop a precise diagnosis of the specific central nervous system degenerative disorder (Table 4). Despite the current lack of effective treatments for any of these disorders, there are prognostic and genetic implications of some of the primary dementias which makes correct diagnosis of paramount importance to family members.<sup>11</sup> In addition, it is unlikely that any single future treatment will be effective for all neurodegenerative disorders, and therapeutic regimens will probably be specific for each disorder.

The clinical manifestations of the primary dementias are strikingly similar and are related to the area of the brain undergoing degeneration rather than the cause of the degeneration. The presenting clinical symptomatology may be the result of involvement of the grey matter (cortical and subcortical) or the white matter, but in most diseases both are involved simultaneously to varying degrees. Much has been made of a categorization of neurodegenerative processes into cortical dementias (ie, Alzheimer's disease and Pick's disease) characterized by aphasia, apraxias, agnosias, and early profound memory disturbances, as contrasted with subcortical dementias (ie, Huntington's disease and Steele-Richardson-Olszewski progressive supranuclear palsy) characterized by movement disturbances, apathy, and depression. This distinction between symptoms principally referable to involvement of the cerebral cortex versus subcortical structures is intriguing as an avenue for research. However, it is not particularly useful clinically since individual patients may have both types of symptoms, and considerable overlap in clinical presentations of these disorders is common. Therefore, antemortem diagnoses based on clinical data can at best only be tentative.

There are as yet no markers in the blood, urine, or cerebrospinal fluid that can be reliably measured

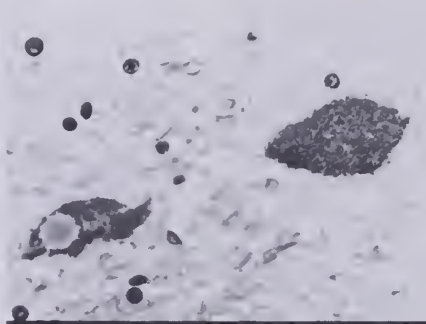
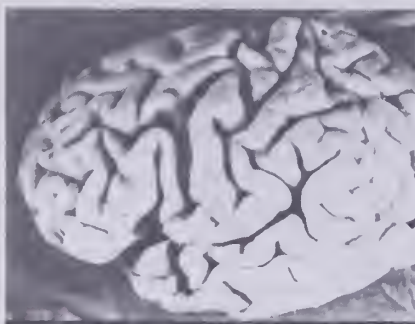
in the clinical laboratory to identify the specific neurodegenerative disorder.<sup>12</sup> Even neuroradiologic demonstration of the topography of the atrophy with the latest imaging methods is not specific for the cause. Presently, accurate diagnosis of dementia is only possible by direct pathologic examination of neural tissue obtained at autopsy.<sup>13</sup> Unfortunately, technological advances that provide greatly improved information about the living patient have altered the views of clinicians and the public concerning the value of autopsy, and it is now more difficult to obtain permission to perform autopsies.<sup>14</sup> Yet, highly distinctive neuropathological features are associated with many of the degenerative processes, including Alzheimer's disease (Fig 1), Parkinson's disease (Fig 2), Pick's disease (Fig 3), Creutzfeldt-Jakob disease (Fig 4), and Huntington's diseases (Fig 5), which allow for accurate diagnosis at autopsy. Thus, rather than simply relying on a presumptive clinical diagnosis of Alzheimer's disease, it is imperative that each patient with a primary dementia existing at the time of death be autopsied in order to establish a definitive diagnosis. In order to underscore the importance of autopsy, we present some illustrative cases of demented patients whose clinical diagnoses were proven incorrect upon neuropathological examination.

## Case Examples of Clinically Misdiagnosed Neurodegenerative Disorders

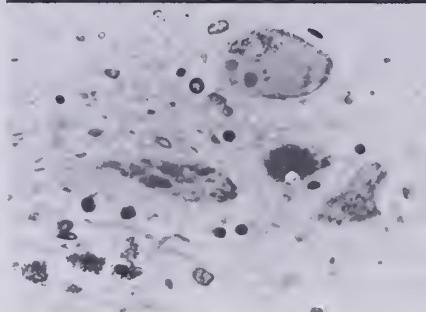
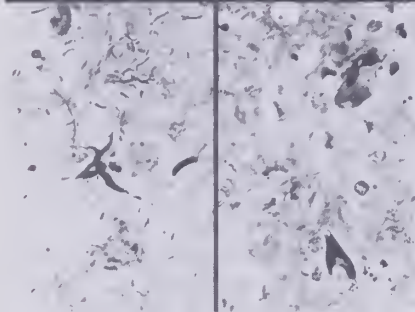
**Pick's Disease Mimicking Alzheimer's Disease.** This man was evaluated at the age of 58 years for a five-year history of insidious loss of higher cortical functions, manifested mainly as forgetfulness and by frequently becoming lost in familiar surroundings. Neurological examination demonstrated no abnormal motor findings, and cranial computed tomographic (CT) scans revealed a mild degree of right-sided parasylvian atrophy. Subsequently, he developed urinary incontinence, speech difficulties, mutism, and dysphagia, and he died at the age of 65 years. He had carried the clinical diagnosis of Alzheimer's disease for nearly a decade. On gross examination, the brain was slightly atrophic but otherwise appeared normal. Histologically, there was marked loss of granular and pyramidal neurons from the hippocampus, and many of the remaining neurons in the hippocampus, amygdala, and adjacent temporal cortex contained the deeply argyrophilic, rounded intracytoplasmic inclusions (Pick bodies) diagnostic of Pick's disease.

**Creutzfeldt-Jakob Disease Mimicking Al-**

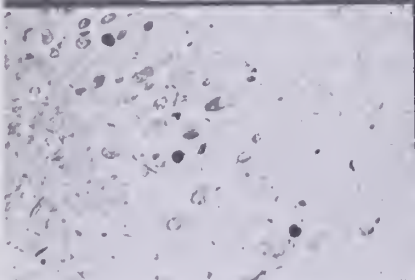
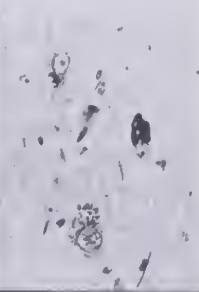
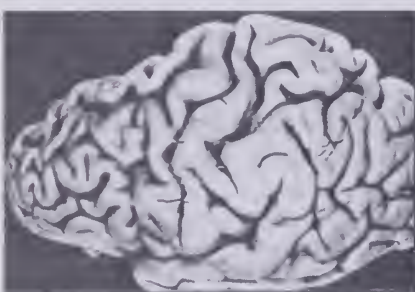




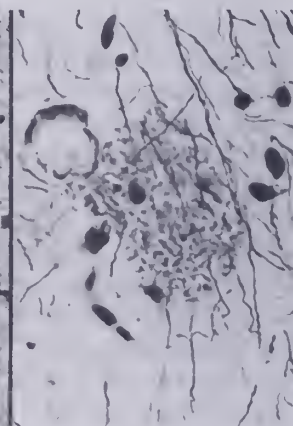
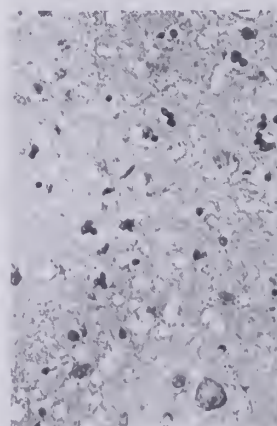
**Figure 1.** Alzheimer's disease (far left): Left hemisphere showing atrophy of frontal, parietal, and temporal lobes (top), neuritic (senile) plaques (lower left) and neurons with Alzheimer neurofibrillary tangles (lower right) (Bielschowsky stain of glycol methacrylate embedded tissue). Reproduced by permission from Marks et al.<sup>64</sup>



**Figure 2.** Parkinson's disease: Lewy bodies in pigmented neurons of the substantia nigra (upper panel and lower panel) and neuronal loss with pigment-laden macrophages (upper panel) are characteristics of Parkinson's disease. Reproduced by permission from Marks et al.<sup>64</sup>



**Figure 3.** Pick's disease: Left cerebral hemisphere showing predominant frontal atrophy (upper left), hippocampal neurons with Pick bodies (upper right, lower right) and granulovacuolar degeneration (upper right), and loss of the small granular neurons from the hippocampal dentate fascia (lower left). Reproduced by permission from Marks et al.<sup>64</sup>



**Figure 4.** Creutzfeldt-Jakob disease: Spongiform change in cerebral gray matter with gliosis (left, phase contrast of H&E section); amyloid (Kuru) plaque in cerebellum (right panel, Bodian stain). Reproduced by permission from Marks et al.<sup>64</sup>



**Figure 5.** Huntington's disease: Left cerebral hemisphere showing generalized atrophy greater frontally (left panel); coronal sections of hemisphere (center panel and right panel) reveal profound atrophy and gliosis of caudate with ventricular enlargement. Reproduced by permission from Marks et al.<sup>64</sup>

**heimer's Disease.** During his early fifties, this previously healthy man began to show behavioral changes such as carelessness and impulsiveness. Neurological evaluation following a minor automobile accident at age 58 years revealed normal strength, increased tendon reflexes in the upper extremities and knees, hypoactive ankle reflexes, prominent glabellar reflex, snout response, brisk jaw reflex, and bilateral palmomental reflexes. Although his speech was fluent, he made frequent naming errors, was able to follow only simple commands, and had evidence of pervasive cognitive deficits. Cranial CT scans revealed diffuse cerebral atrophy. There was marked background slowing (3 Hz) on the electroencephalogram. Over the next year, his mental functioning declined further and he subsequently developed difficulty swallowing, a progressive decrease in speech to mutism, increasing ataxia (with frequent falling), and bowel and bladder incontinence. He became noncommunicative and markedly rigid with contractures and generalized muscular atrophy, and he died of pneumonia at age 62 years with a clinical diagnosis of Alzheimer's disease. At autopsy, the brain was markedly atrophic, and there was diffuse neuronal loss with reactive gliosis and spongiform changes involving all levels of the neuraxis. Amyloid deposits (Kuru plaques) were identified in the cerebellar cortex, characteristic of Creutzfeldt-Jakob disease. Transmissibility studies were not carried out.

**Down's Syndrome with Alzheimer's Disease Unrecognized During Life.** The 29-year-old woman had resided for many years in the Pauls Valley State School with the diagnosis of Down's syndrome. During the last few years of her life she had become increasingly nonverbal, although retaining modest functional abilities. No explanation for her noncommunicative state was apparent. Autopsy revealed a markedly atrophic brain which histologically showed severe changes of Alzheimer's disease.

### **Clinicopathological Characteristics of Common Neurodegenerative Dementias**

Dementia is the progressive global decline of mental abilities. The current diagnostic criteria include evidence of impairment in short-term and long-term memory (without change in alertness, at least early in the disease), accompanied by at least one of the following: impaired abstract thinking, impaired judgment, other disturbance of higher cortical functioning (asphasia, apraxia, agnosia, or constructional difficulty), or personality change<sup>2</sup> (Table 1).

**Alzheimer's Disease (Senile Dementia of the Alzheimer Type).** Alzheimer's disease is the most common dementia; however, it accounts for less than 50% of cases of dementia.<sup>3</sup> The archetypical disorder begins with the insidious onset of progressive amnesia, aphasia, apraxia, and/or agnosia, and loss of orientation in space and time, followed by apathy, irritability, and emotional lability. Focal motor signs (such as limb rigidity and hypertonia) appear late in the course of the disease.<sup>15</sup> Lifespan following diagnosis averages about 6 to 8 years.<sup>11</sup> Some families have been recognized in which numerous members developed Alzheimer's disease in their forties or fifties, the age of onset being specific within a few years for a given family. Analysis strongly supports an autosomal-dominant inheritance pattern for Alzheimer's disease in these families.

Even though clinical criteria for the probable diagnosis of Alzheimer's disease have been developed<sup>16,17</sup> (Table 5), a definite diagnosis requires autopsy confirmation<sup>18</sup> (Table 6). At autopsy the brain is usually diffusely atrophic. Histologically, there is variable loss of large pyramidal neurons in the neocortex,<sup>19</sup> diminished dendritic arborization,<sup>20,21</sup> and the highly characteristic changes of neuritic (senile) plaques and neurofibrillary tangles,<sup>22-27</sup> which can be readily identified using appropriate silver stains.<sup>28-30</sup> Although neuritic plaques occasionally have been found in the brains of aged apparently nondemented people, their distribution is far greater in Alzheimer's disease,<sup>22-27</sup> and the neuropathologic criteria developed by the National Institutes of Health Consensus Conference to establish definitive diagnosis of Alzheimer's disease involve quantitation of the neuritic plaques in cerebral neocortex<sup>18</sup> (Table 6).

Patients with late Alzheimer's disease often have clinically apparent rigidity and tremulousness. Studies suggest that at least 20% of Alzheimer's disease patients have clinical signs consistent with Parkinson's disease, while almost 50% of Alzheimer's disease patients with or without clinical signs will have neuropathological changes (Fig 2) of Parkinson's disease<sup>31</sup> (including degeneration of the pigmented neurons of the substantia nigra and the locus ceruleus, with Lewy bodies in remaining neurons). In addition, up to 80% of Parkinson's disease patients eventually develop dementia, with over 50% of these having neuropathological features of Alzheimer's disease.<sup>32-35</sup> The explanation for this overlap is not known, but it has been suggested that these two disorders represent different expressions



of a common pathophysiological mechanism.<sup>36</sup>

**Down's Syndrome.** Down's syndrome is the most common cause of mental retardation in the United States and constitutes an additional risk factor for Alzheimer's disease. Although most patients with Down's syndrome begin to demonstrate pathologic evidence of Alzheimer's disease after the age of 25 years,<sup>37,38</sup> the pre-existing retardation and paucity of adequate psychological tests often interfere with establishing the clinical diagnosis of Alzheimer's disease. As our patient demonstrates, continued mental deterioration may only be inferred from available data. However, if the end result of Down's syndrome is Alzheimer's disease, it is even more imperative that examination of this common chromosomal disorder continue.

**Pick's Disease.** Pick's disease is a global dementia reported to occur with an incidence  $\frac{1}{10}$  that of Alzheimer's disease,<sup>39-41</sup> although neuropathologic experience with proven cases suggests a much lower frequency. Unique clinical symptoms said to be characteristic of Pick's disease include profound frontal lobe dysfunction including compulsive behavior and defects in judgment, attention, sequencing, and temporal orientation, but with speech and motor function relatively preserved. However, the clinical presentations of Alzheimer's disease and Pick's disease usually cannot be distinguished, and Pick's disease generally progresses to a terminal state over a five-to-ten-year period. Neuropathologically, in Pick's disease (Fig 3) prominent atrophy of the anterior frontal and temporal lobes, along with basal ganglia involvement, is characteristic, and the microscopic hallmark (found in the surviving neurons in the least destroyed areas) is the round, argyrophilic intracytoplasmic neuronal inclusion, termed the Pick body.<sup>39-41</sup> It has been suggested that Pick bodies are found in only 20% of the cases,<sup>42</sup> but the diagnosis of Pick's disease without this characteristic histopathologic change must be suspect.

**Creutzfeldt-Jakob Disease.** Creutzfeldt-Jakob disease occurs in middle age, in both sexes equally, and has a variable course from a few months to more than a decade, although most of the patients deteriorate rapidly and die within two years of onset.<sup>43,44</sup> The disease is marked by an inexorably progressive and global decrease in attention and cognitive skills. As dementia develops, neuromuscular disturbances, particularly myoclonus, become prominent. When present, the characteristic electroencephalographic (EEG) "periodic complexes" can help to separate Creutzfeldt-Jakob disease from other dementias.

**Table 5. Clinical Criteria for Diagnosis of Alzheimer's Disease\***

- I. Probably Alzheimer's disease
  - A. Necessary features
    1. Dementia established by clinical examination, rating scale, and neuropsychological tests
    2. Deficits in two or more areas of cognition
    3. Progressive worsening of memory and other cognitive functions
    4. No disturbance of consciousness
    5. Onset between ages 40 and 90 years, most often after age 65 years
    6. Absence of systemic or other brain disorders possibly producing the dementia
  - B. Supportive features
    1. Progressive deterioration of specific cognitive functions such as aphasia, apraxia, and agnosia
    2. Impaired activities of daily living and altered behavior
    3. Family history of similar disorders, particularly if confirmed neuropathologically
    4. Laboratory results:
      - a) normal lumbar puncture (standard tests)
      - b) normal or nonspecific EEG changes
      - c) evidence of cerebral atrophy on CT with progression documented by serial observation
  - C. Consistent features
    1. Plateau periods
    2. Associated behavioral symptoms including depression; insomnia; incontinence; delusions; illusions; hallucinations; catastrophic verbal, emotional, or physical outbursts; sexual disorders; and weight loss
    3. Neurologic abnormalities, particularly in advanced cases, including increased muscle tone, myoclonus, gait disorder
- II. Possible Alzheimer's disease
  - A. Unexplained dementia syndrome with variations in the onset, presentation, or clinical course
  - B. A second potential cause of the dementia syndrome is present but is thought not to be the cause of the disorder
  - C. Single progressive cognitive deficit without an identifiable cause
- III. Definite Alzheimer's disease
  - A. Clinical criteria for probable Alzheimer's disease, and
  - B. Histopathologic evidence (neurofibrillary tangles, neuritic plaques) from biopsy and/or autopsy
- IV. Specific Alzheimer's disease subtypes
  - A. Familial occurrence
  - B. Onset before age 65 years
  - C. Presence of trisomy-21 (Down's syndrome)
  - D. Coexistence of other relevant conditions such as Parkinson's disease

\*Adapted from McKhann et al<sup>17</sup>

Some patients with a protracted clinical course extending more than a decade (sometimes referred to as the Gerstmann-Sträussler-Scheinker syndrome) have prominent dementia and absent myo-



clonus, which may lead the physician away from the diagnosis of Creutzfeldt-Jakob disease.<sup>44</sup> At autopsy, there is diffuse atrophy of the cerebrum, brainstem, and cerebellum. Microscopically, the gray matter shows a finely microcystic "spongiosis" (Fig 4) and profound gliosis is apparent throughout both gray and white matter.<sup>43</sup> The characteristic amyloid plaques, found in abundance in the cerebellum and more rarely in the cerebrum, have been termed Kuru plaques because of their similarity to plaques characteristic of Kuru, the transmissible dementia seen in cannibalistic New Guinea highlanders.

Absolute confirmation of the diagnosis of Creutzfeldt-Jakob disease requires demonstrating transmissibility to animals. The transmissible agent of Creutzfeldt-Jakob disease is thus far indistinguishable from the agent which causes Kuru, scrapie in sheep, and transmissible mink encephalopathy.<sup>45</sup> However, since transmissibility studies are cumbersome, expensive, and may be dangerous, the histopathological changes are generally considered sufficient to establish the diagnosis. Because Creutzfeldt-Jakob disease can be easily mistaken on clinical ground alone for noninfectious dementias, organ or blood donations should not be accepted from demented patients.<sup>46</sup>

Even though Creutzfeldt-Jakob disease has been putatively transmitted to recipients of corneal transplants, dural grafts, and human pituitary growth hormone extract,<sup>46</sup> and to paramedical personnel who years earlier had worked with infected brains,<sup>47</sup> an excessive hysteria has developed among health care workers regarding this agent. The evidence suggests that only direct inoculation of nervous system tissue can produce transmission and that other contact (even with blood) will not result in transmission. Thus, standard medical care does not place caregivers at increased risk. However, since the agent can survive formalin fixation, disinfection of nervous system tissue does require agents such as household bleach<sup>48</sup> or phenolized formalin solution when histologic integrity of specimens must be maintained.<sup>49</sup>

**Huntington's Disease.** Huntington's disease produces a progressive dementia usually in the presence of a characteristic choreiform movement disorder.<sup>50,51</sup> The dementia is less flagrant than with other neurodegenerations and is often manifested as distractibility, memory loss, irritability, and depression.<sup>52</sup> When the abnormal movements are prominent and the patient is middle aged, there should be little confusion with other dementing diseases.

**Table 6. Pathologic Diagnosis of Alzheimer's and Parkinson's Diseases\***

**Definite diagnosis of Alzheimer's disease:**

1. Density of neuritic plaques in neocortex must exceed:

<age 50 years	2 per field
age 50 to 65 years	8 per field
age 66 to 75 years	10 per field
>age 75 years	15 per field

Slides stained with silver stain or amyloid stain examined using a 20X objective (microscope field of approximately 1mm<sup>2</sup>) with counts made of at least 5 fields in areas with greatest density of pathologic changes

Presence of the characteristic pathologic hallmarks of other disorders associated with dementia (eg, Pick bodies, chronic subdural hematoma greater than 10 cc, intracranial neoplasm, greater than a total of 50 cc of cerebral tissue showing infarction, spongiform encephalopathy), even if criteria of Alzheimer's disease present, clouds establishment of diagnosis. Both disorders may coexist, but clinical judgment of the significance of each is required.

2. Neurofibrillary tangles, granulovacuolar change, Hirano bodies, and amyloid vasculopathy may be present, but are not required for diagnosis

**Definite diagnosis of Parkinson's disease:**

1. Reduction in density of pigmented neurons, collections of melanin-containing macrophages, and gliosis in substantia nigra and locus ceruleus
2. At least one neuron containing Lewy body in substantia nigra or locus ceruleus
3. Absence of brainstem infarcts involving substantia nigra or locus ceruleus

**Diagnosis of neurodegenerative abnormality of uncertain significance:**

1. Changes of insufficient quantity to qualify for definite diagnosis of Alzheimer's disease; termed "limited Alzheimer changes"
2. Degeneration of substantia nigra and/or locus ceruleus without Lewy bodies; "limited Parkinsonian changes"

\*Adapted in part from Khachaturian<sup>18</sup>

The overall duration of illness averages 14 years. Since Huntington's disease is inherited as an autosomal dominant disorder with complete penetrance, a positive family history is helpful in establishing the diagnosis. However, when the clinical picture is dominated by cognitive and behavioral dysfunction, without chorea and without a confessed family history, arriving at the appropriate diagnosis can be much more challenging.

Newer tomographic imaging methods should allow earlier diagnosis by demonstrating striatal atrophy and hypometabolism in the basal ganglia,<sup>53</sup>

and certain research laboratories have molecular biologic probes to detect the abnormal DNA in cultured cells.<sup>50</sup> The autopsy of afflicted individuals provides proof of the disease in families where it has not been confirmed previously, and such information is important for genetic counseling purposes. Neuropathologically (Fig 5), the head of the caudate nucleus shrivels and the frontal horn of the lateral ventricle dilates rectangularly, producing the "box-car ventricle" appearance. The small neuron population of the caudate and putamen is absent and replaced by gliosis, while large neurons are relatively preserved. Presumably a similar loss of small granular neurons in cerebral association cortex accounts for the dementia, but this has not yet been documented.

**Binswanger's Disease (Subcortical Leukoencephalopathy).** Binswanger's subcortical dementia is a progressive process related to chronic hypertension and ischemia.<sup>54</sup> It may be possible to elicit clinical evidence of waxing and waning focal neurological deficits and a loss of function that is stepwise, progressive, and involving a variety of cortical, subcortical, brain stem, and cerebellar functions. Most but not all patients have clinical hypertension.

Magnetic resonance imaging (MRI) can be helpful by showing multiple areas of cortical and basal ganglionic atrophy with irregular areas of increased T<sub>2</sub> signal intensity from the deep cerebral white matter parallel to the lateral walls of the lateral ventricles in a discontinuous track. On neuropathologic examination, the cerebral cortical surface has a flea-bitten appearance when the arachnoid is stripped away. There are multiple microscopic cerebral infarcts, rarefaction of the deep white matter of the centrum semiovale, and many small cavities in the striatal nuclei characteristic of the lacunar state. Thalamic, cerebellar, and brainstem infarcts are also often present. Generally, the only other histological feature of note is arteriosclerosis.

## Patient Management

Included among the many issues involving general medical care, nutrition, and social support systems that need to be addressed in understanding the care and treatment of the patient with Alzheimer's disease are adequate medical care, adequate nutrition, support of caregivers, support of family members (who may not be directly involved in caregiving), social supports (including nursing home placement), home services, day care, inpatient respite care, custodial care, and finding social services. Several

books discussing these issues are now available.<sup>11,55,56</sup>

Physicians caring for the patient with dementia must remain sensitive to the fact that accurate antemortem diagnosis based on clinical evaluation alone often is not possible. While the majority of central nervous system degenerations are due to Alzheimer's disease, the remainder have any of the multiple degenerations, including those discussed above.<sup>5,16,57,58</sup> Errors in clinical diagnoses are inevitable and may invalidate conclusions that presuppose a homogeneous population. The development of therapeutic strategies for specific dementias depends upon accurate diagnosis, and therapies effective on a subtype of dementia might be overlooked in the statistical noise produced by heterogeneity of the diseases being studied. The only way to assure uniform study populations is to pursue accurate diagnoses all the way to the evaluation of autopsy brain specimens. The special problem of overlap syndromes, such as that seen with Parkinson's and Alzheimer's diseases, also highlights the significance of neuropathologic evaluation to help clarify the relationship between two such neurodegenerative syndromes.

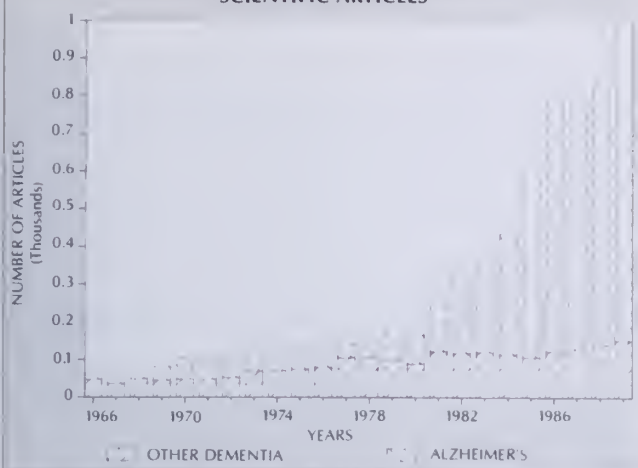
The importance of accurate diagnosis for genetic considerations and family counseling cannot be overemphasized. Although the exact inheritance patterns of most of the dementias are still vague, familial aggregation is well recognized.<sup>59,60</sup> For some dementing diseases, the genetic implications are clear: Huntington's disease is caused by an autosomal dominant gene; an autosomal dominant inheritance pattern has been suggested for the familial form of Pick's disease; and families with Alzheimer's disease have increased incidence rates of Down's syndrome and leukemia (both linked to chromosome 21).<sup>61-63</sup> However, genetic heterogeneity in Alzheimer's disease appears to be the pattern emerging from linkage studies and may indicate the involvement of several different genes in this disorder.<sup>62,63</sup>

## Conclusions

The hope for the future is research that will broaden our understanding of the pathophysiology of dementia and lead to improved and earlier diagnosis and potential treatment. Interest in such study is rapidly accelerating as can be seen from Figure 6, which shows the exponential growth in published articles in scientific journals over the past twenty years regarding the subject of dementia. Unfortunately, since no reliable animal models of these diseases



## SCIENTIFIC ARTICLES



**Figure 6.** Chart demonstrating over the past twenty years the rapid growth in the scientific literature regarding dementia. The number of articles each year was derived from the MEDLINE literature search of the terms dementia and Alzheimer's disease.

have been found, it is necessary to have human tissue available for study. In addition, it is crucial that the correct diagnosis be made in order for studies of the human material to be accurate. For example, a 25% error rate in clinical diagnosis, as has been reported in some studies,<sup>57,58</sup> could lead to incorrect assumptions concerning the efficacy of drug treatments. It is therefore imperative that clinicians and investigators carefully monitor their demented patients and seek and obtain autopsy permission from the families in order to provide a valid final diagnosis and (if the patient has participated in clinical research) to confirm the reliability of study conclusions. Careful neuropathological assessment of each case is necessary to establish this final diagnosis accurately, and the autopsy brain tissue can then also be used for basic research studies.

## Acknowledgments

The authors wish to acknowledge support of the Section of Neuropathology by Dr Fred Silva, Chairman, Department of Pathology, University of Oklahoma College of Medicine, and support of the Autopsy Assistance Network by Dr William G. Thurman, President, Oklahoma Medical Research Foundation, Oklahoma City, Oklahoma.

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## Coming next month

Among manuscripts being prepared for publication in April are a paper on child abuse, two case studies of renal failure in diabetics, and a report on unusual skin sites of herpes simplex eruptions.

# Double Penetrating Nail Injury to the Eye: A Case Report

Steven W. Newell, MD

We report an unusual double penetrating eye injury in which a 26 mm carpenter's nail pierced the eye. The nail penetrated the sclera equatorially and pierced the retina posteriorly just above the superior temporal retinal vascular arcade. Six hours following the injury the nail was removed from the eye, transcleral cryotherapy was applied to the entry site, and an episcleral silicone band was used to create an encircling buckle. Visual acuity at 2 months and most recently at 33 months following the injury was 20/30. This case demonstrates that selected double penetrating injuries of the posterior segment may be successfully managed with conventional scleral buckling techniques and underscores the importance of protective eye wear for hobby work or leisure activities.

**P**enetrating ocular injuries are a leading cause of unilateral visual loss, with young men sustaining 90% of these injuries.<sup>1</sup> The visual prognosis after a penetrating injury is strongly influenced by the nature of the injury; the location, extent, and effects of the initial damage; and delayed effects of intra-

ocular cellular proliferation.<sup>2</sup> We report a case of a double penetrating nail injury which achieved good anatomic and functional results utilizing conventional scleral buckling techniques without vitrectomy.

## Case Report

E.D., a 42-year-old myopic architect who was not wearing safety glasses was struck in the right eye by a one inch nail while sawing a plank with a rip saw. On examination 30 minutes following the injury, visual acuity was 20/200 in the involved eye. On external examination, the flat butt end of the nail was the only portion visible, and it was flush with the scleral surface (Fig 1). The nail had passed through the vitreous cavity and impaled the posterior retina, choroid, and sclera in the 12 o'clock meridian, superior to the superior temporal retinal vascular arcade. A small amount of subretinal fluid surrounded the posterior penetration site. The media were clear, as minimal vitreous hemorrhage was confined to the entry site and occasional areas along the edge of the nail shaft (Fig 2). The left eye was normal. X-rays of the right orbit demonstrated a nail which spanned the length of the orbit (Fig 3). There were no signs indicating penetration into the retro-orbital intracranial cavity.

Presented at the International Congress on Ocular Trauma, Tel Aviv, Israel, February 22, 1989.

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Figure 1. Flat butt end of nail flush with scleral surface.

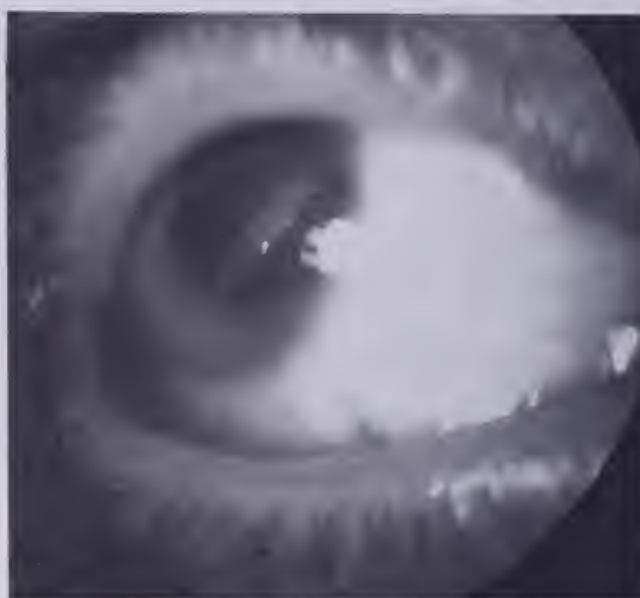


Figure 2. Minimal hemorrhage along intravitreal shaft of nail.

Six hours after the injury the patient was taken to the operating room. A 360-degree peritomy was performed. An encircling silicone band was placed about the eye and anchored to the sclera with mattress sutures placed in the center of each quadrant at about the equator. A grooved silicone plate was placed beneath the band to extend from approximately the 7:00 meridian to the 10:00 meridian. The nail was then removed from the eye with forceps. The posterior pole of the globe was not explored. Transcleral retinal cryotherapy was applied to both the entry site and the posterior retinal perforation. The globe softened moderately during this portion of the procedure, and a moderate buckling effect was created by joining the ends of the encircling element. Air was injected through the pars plana to restore the eye to normal intraocular pressure. Comprehensive cultures were obtained, and subconjunctival antibiotics and betamethasone were injected. Intravenous antibiotics were given for four days. Oral steroids were prescribed on the second postoperative day and continued in a tapering dose for approximately three weeks.

Postoperatively, apparent vitreous condensations were seen along the intravitreal tract of the nail. Localized hemorrhage near the entry site was observed approximately one month following surgery, and apparent neovascularization of this site was believed to be the cause. This tissue was subsequently treated with argon blue-green laser

therapy. Signs of intravitreal cellular proliferation did not occur. Thirty-three months following the injury, visual acuity was 20/30 with a  $-10$  spherical equivalent, whereas the refractive error in the normal left eye was  $-6.25$  diopters. At the posterior exit wound was a large, atrophic chorioretinal scar surrounded by hyperpigmentation. A large vortex vein ampullae was within the inferior edge of the scar.

## Discussion

Factors possibly contributing to a favorable outcome<sup>3</sup> in this case included the limitation of the initial ocular injury to the sclera, choroid, retina, and vitreous, and the sparing of the lens, ciliary body, optic nerve, and macula. Additional favorable prognostic factors were good initial visual acuity (20/200); a sharp-tipped, smooth-edged missile; minimal localized preoperative hemorrhage; an absence of intraoperative hemorrhage; delayed postoperative intravitreal hemorrhage, which was minimal and remained loculated; and a small retinal detachment, which remained localized at the entrance and exit wounds.

Protective safety glasses can help prevent severe eye injuries. Polycarbonate material used in protective safety lenses has well-defined resistance to small and medium-sized fragments traveling at moderate velocities. LaPiana et al<sup>4</sup> analyzed penetrating ocular wound data based upon US combat





**Figure 3.** X-ray of right orbit which demonstrates the path of the nail spanning the length of the orbit.

experience in Korea and Southeast Asia and directly examined missiles responsible for this type of wound. They estimated an eye casualty reduction of nearly 40% with the use of polycarbonate protective eyewear. Further analysis of both noncombat and combat penetrating ocular trauma within the US military has culminated recently with the issue of 2 mm polycarbonate eye protection to infantry personnel.



**Figure 4.** One side of the one-inch nail shaft was flattened, as though it had been ground against the rotating saw blade.

## Conclusion

Although this patient had a fortunate result following a severe double penetrating ocular injury, protective eyewear can minimize the vulnerability of many eyes to injury. Perhaps this graphic case will remind us to use polycarbonate lenses or other safety glasses when exposed to a hazardous environment either at work or during leisure activities. □

## Acknowledgment

I thank C. Pat Wilkinson, MD, McGee Eye Institute, for his review of this manuscript and suggestions, and Mrs Ann Seim for her secretarial assistance.

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# Survival of Severe Neuroleptic Malignant Syndrome in a 78-Year-Old Man Treated with Dantrolene

Neil B. Kimerer, MD; Dennis M. Parker, MD; Chris M. Sholer, MD; J. Ray Trammell, MD

The authors report a case of neuroleptic malignant syndrome in a 78-year-old man. The patient presented with a lack of contact with reality, hallucinations to which he was responding incoherently, and agitation and belligerence. He showed much improvement following treatment with dantrolene and was released to a nursing home 24 days after admission.

Neuroleptic malignant syndrome (NMS) was identified by Delay and Deniker in 1968.<sup>1</sup> The syndrome is rare and has been reported infrequently in a person this age. The predominant age group has been young adults up to age 40 years.<sup>2,3</sup>

The description of the syndrome has been well documented. The components of the syndrome are lead pipe rigidity;<sup>4</sup> diaphoresis; fever; cyanosis, leukocytosis; hematuria; renal damage, sometimes with anuria; hypertension; myoglobinuria; and rhabdomyolysis. Often the most profound change is in the altered mental state, with loss of consciousness, loss of contact with reality, restlessness, agitation, belligerence, and severe pseudoseizure activity. The predominance of any one or more of the compo-

nents varies from case to case, and not all are present in any one case. The reported mortality has been variable, ranging from 4.0% to 22.0%.<sup>2,3</sup>

## Case Report

The patient had been seen by one of the authors (JRT) when a daughter brought him to the author's office some four months prior to this episode, and he was placed on hydergine at that time.

At the time of this admission, the patient presented with a lack of contact with reality, hallucinations to which he was responding incoherently, agitation, and belligerence, ie, an "altered mental status."

He was admitted to the Senior Diagnostic Center at Deaconess Hospital. The only medication reported to have been administered for control of his symptoms was haloperidol 5 mg, IM given in a rural hospital emergency room about four hours prior to his admission. We were unable to obtain more definitive information from the son and daughter-in-law who accompanied him until two days following his admission. The son provided us with a list of drugs prescribed over a period of six months by four different physicians within a few miles from his home (quinine, ibuprofen, pseudoephedrine, hydroxazine,

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coated aspirin, aminophylline). He was said to have been diagnosed as having Parkinsonism and chronic obstructive pulmonary disease (COPD) two years previously.

The physical examination revealed weight 87 Kg, temperature 97.8°F orally, blood pressure 124/76, and pulse 60. There was constant agitation but no gross abnormalities were apparent except for bilateral rhonchi over both posterior lung fields, suggesting COPD, a grade IV/VI systolic murmur, mild lead pipe rigidity (+),<sup>4</sup> and a severe bilateral hearing loss.

The initial laboratory findings were as follows: Results of Chem 18 (Technicon), CBC, arterial blood gases, and urinalysis were all within normal parameters except for "few RBCs" in the urine. Other studies such as febrile agglutinins, thyroid profile, VDRL, and isoenzymes were within normal limits. A chest X-ray showed mildly congested lung fields. Liver enzymes were SGOT 46 mu/ml, alkaline phosphatase 82 mu/ml, LDH 264 mu/ml, and CPK 286 mu/ml. The serum magnesium was 2.1 mg/dl. The patient's EKG had mild nondiagnostic T-wave changes and an old inferoseptal infarct.

## Clinical Course

For the first three days of hospitalization the patient remained out of contact with reality; his vital signs were not remarkable until his oral temperature rose to 102.4°F and respiratory distress was noted. Respiratory therapy was begun with theophylline IV, inhalation therapy, and erythromycin.

Over the next three days methylprednisolone and furosemide were added, with little clinical or laboratory change.

On the seventh day rigidity increased (+++) and the patient became oliguric (urine output <20 ml/hr). The following day diaphoresis and cyanosis developed. The patient was transferred to the intensive care unit even though his oral temperature had dropped to 100.6°F.

The WBC rose and peaked at 18.1 th/mm<sup>3</sup> on the ninth day. The CPK rose to 17489 mu/ml and began falling; the SGOT was 301 mu/ml, LDH 576 mu/ml, BUN 55 mg/dl, and creatinine 3.5 mg/dl. Hematuria and proteinuria were noted. The patient's isoenzymes were not indicative of cardiac involvement. On the ninth day, treatment with dantrolene was begun with 250 mg IV in divided doses (2.87 mg/Kg), NG hyperal to bypass the patient's inability to swallow, and Mannitol and NaHCO<sub>3</sub> IV to support his kidneys. The patient was totally out of contact with reality but arousable. He required restraints.

He received 300 mg dantrolene (3.45 mg/Kg) on the tenth day, and the CPK dropped to 9464 mu/ml; the LDH reached its zenith at 563 mu/ml as the SGOT had already begun to drop to 269 mu/ml from 301 mu/dl. The patient's ABGs were within normal limits. Urine volume remained acceptable, and the hematuria diminished. Rigidity lowered to +. The patient was more cooperative and would attempt verbal responses and some vague answers to inquiry.

Peak, BP 196/106, occurred on the eleventh day, but at no time during this period from the ninth day on did the patient's temperature exceed 101.0°F rectally. Protein had disappeared from his urine.

Dantrolene was reduced gradually over a 48-hour period and stopped at a total oral dose of 150 mg. The only remaining medications were the supportive IV infusions which continued through the 16th day, when the patient was transferred back to the Senior Diagnostic Center.

At the time of discharge on the 24th day in hospital, the patient's vital signs were temperature 98.2°F, blood pressure 120/80, pulse 64, respiration 16, WBC 7.0 th/mm<sup>3</sup>, HGB 13.0 g/dl, HCT 37.4%, BUN 11 mg/dl, creatinine 1.2 mg/dl, LDH 188 mu/dl, SGOT 47 mu/dl, and CPK 40 mu/dl. His mentation had improved to an extent that he was participating in activities in the Senior Diagnostic Center. He seemed in much better contact with reality than at any time since admission. His weight was 76 Kg. He had lost 11 Kg in 24 days.

The patient was discharged on phenobarbital and lorazepam to go to a nursing home in his hometown where his daughter could supervise his care.

## Hindsight and Discussion

It is very possible that this man had neuroleptic malignant syndrome at the time of admission, and the initial sedative administration aggravated the problem. We do not know whether the precipitating event was the withdrawal of the drugs he may have been taking or the haloperidol administered at the rural emergency room. The etiology of the syndrome remains controversial, as does the nature of the syndrome itself.<sup>1-3</sup>

The differential diagnosis has received some discussion and Kellam has made a thorough study of the older literature to conclude that the syndrome is much older than is commonly assumed.<sup>5</sup> The three most common disorders from which it may be distinguished are malignant hyperthermia, psychotic catatonia, and severe extrapyramidal syndrome.<sup>1-3</sup>

Since dantrolene was first recognized as a muscle



relaxant, it has been used frequently in treatment.<sup>4</sup> Dantrolene or bromcriptine has been used most often to treat NMS even though many other drugs have been successful, as has ECT. Some therapeutic drugs also have been implicated in precipitation of the syndrome, so the etiology has remained controversial.<sup>2,3,5</sup>

This 78-year-old man survived, which makes our treatment successful, but neuroleptic malignant syndrome should not be taken lightly at any degree of severity because the outcome is not predictable.

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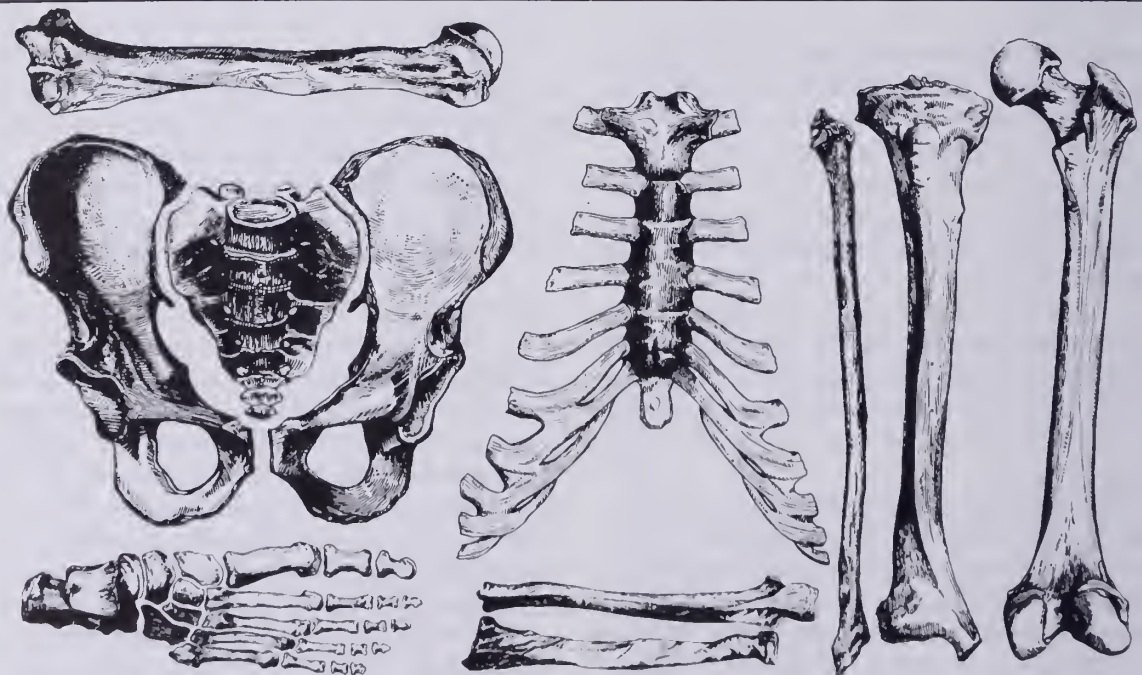
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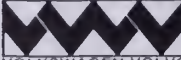
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*Prior to entering school*

## Family physicians' group urges second measles vaccination

The American Academy of Family Physicians (AAFP) has recommended routine second measles, mumps, and rubella (MMR) immunizations for children four to six years of age, or just prior to entering school. The association also says that children in areas where there is a high risk of contracting measles should receive their first MMR at 12 months rather than 15 months of age.

The AAFP's revised guidelines calling for two childhood measles vaccinations concur with the Immunizations Practice Advisory Committee's report "Measles Prevention," issued recently by the federal Centers for Disease Control (CDC). The AAFP has a liaison representative on the CDC committee.

The AAFP revised its recommended schedule for MMR vaccinations because of the increasing number of infants, children, and adolescents who have contracted measles. Some of these cases occurred in children who were previously immunized but failed to develop protection against measles.

"It appears that about 5 out of every 100 children who were properly immunized failed to develop protection against measles," said Gerald C. Keller, MD, chairman of the AAFP's Commission on Public Health and Scientific Affairs. "That's why these kids are getting measles and why they need to get a second MMR shot."

Immunization efforts are generally more effective when they are an entrance requirement for school, Dr Keller said.

Although the AAFP and CDC recommendations generally call for a first measles shot at 15 months and a second shot at 4 to 6 years of age, some states may require the second MMR be given at an older age. In addition, authorities in high risk areas might advise the first MMR be given at 12 months of age. The new guidelines define a high risk area as a county or portion of a county with (1) more than five measles cases among preschool-aged children during each of the last five years; (2) a recent outbreak

among unvaccinated preschool-aged children; or (3) a large urban population.

"There are a number of other individuals who should consider either a second MMR or a test for evidence of measles immunity," Dr Keller said. "The CDC recommends a second MMR shot or a measles immunity test for everyone who is going to college or other educational institutions beyond college, as well as medical personnel beginning employment who will have direct patient care contact."

Measles vaccinations are *not recommended* for pregnant women, persons with active tuberculosis, or persons who have allergies to eggs, said Dr Keller.

□

*Abuse, neglect cases increasing*

## Study says states not equipped to help children of the mentally ill

The number of child abuse, sexual abuse, and neglect cases among children born to mentally retarded parents is growing rapidly, and society is ill-prepared to help these young people, a study in January's *American Journal of Diseases of Children* concludes.

The authors, Pasquale Accardo, MD, and Barbara Whitman, PhD, of the Department of Pediatrics and Adolescent Medicine at St. Louis University, Mo, studied 79 families who had 226 children. The study found more than 66% of those children suffered child abuse, sexual abuse, and/or neglect.

"In general, the children who were cognitively brighter and could talk better seemed more likely to be abused," the authors wrote. They also contend the US has very few programs to help mentally retarded parents or their children.

The authors' study concluded mentally retarded adults were having children as often as the general US population.

□

## Autologous donation negates certain risks, adds others

While the risk of transmitting disease through blood transfusions is falling, autologous blood remains the safest option for eligible patients, says a recent report. Still, the author cautions, there are risks; autologous donation is not appropriate for all patients.

"Recently, the fear of transfusion-transmitted diseases from homologous blood transfusion, which uses blood collected from volunteer donors other than the patient, has renewed interest in autologous blood transfusion," writes Susan D. Rogus, RN, MS, of the National Blood Resource Education Program, Bethesda, MD.

Rogus warns that since most planned surgeries don't result in significant blood loss, even autologous transfusions aren't necessary in most cases. In those cases where transfusion is anticipated, the author suggests several options: (1) preoperative autologous transfusion; (2) perioperative blood salvage; and (3) acute normovolemic hemodilution. These procedures can be used separately or in combination to reduce the need for autologous blood.

The author cites two major risks of preoperative autologous blood donation: transient hypotension and bradycardia or loss of consciousness, and a possible deterioration of the patient's condition if surgery is delayed while blood is collected autologously. Consequently, the procedure poses some risk for patients with cardiac or cerebrovascular disease, and might compromise those planning cardiovascular surgery, the report notes.

The ideal patient for this type of blood transfusion is one who has two or more weeks before surgery and who is likely to need a transfusion during or after an operation, says Rogus. Physicians who do not think their patients will need a transfusion are urged by the author to recommend against autologous donations before surgery.

The report adds that collecting a patient's own blood before surgery is not a guarantee other blood sources will not be needed.

"If insufficient autologous blood had been donated, if the patient is not correctly identified, or if the autologous unit is lost or mislabeled, the patient could receive blood from the homologous supply," the article says. "Thus, during the discussion of the surgical risks and benefits with the patient, autologous donations should not be presented as a guarantee against other transfusions."

The report appears in the January 19 *Journal of the American Medical Association*. J

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### Popular publication

## OSMA receives few requests for corrected listings in directory

The 1990-91 directory of the Oklahoma State Medical Association was issued in December and has been well received.

While every effort was made to ensure accuracy, the following corrections have been noted by the publisher:

**Bazih, Jaafar M:** Address and phone should be 2424 E 21st St #320, Tulsa 74114, 918-748-8833.

**Beal, Jeffrey:** Address should be 9330 E 41st St #207, Tulsa 74145.

**Bethea, Charles:** Specialty should be CD.

**Clafflin, James:** Specialty should be AI.

**D'Souza, Liphard:** Specialties should be listed as CHN, N, PD.

**McMillan, Euan M:** Specialty DMP should be added.

**Quinlan, James T:** Address should be 1201 Arlington, #D, Ada 74820

**Roy, Lawrence J:** Phone number should be 405-235-7802.

**Salamy, Joseph:** Phone number should be 918-742-8992.

Directories are available to OSMA members for \$15 per copy. Non-member price is \$30, or \$15 a copy for bulk orders of ten or more. All orders must be prepaid. Checks should be made payable to OSMA and mailed to 601 Northwest Expressway, Oklahoma City, OK 73118. J

84th ANNUAL MEETING  
OSMA House of Delegates

May 3-5, 1990

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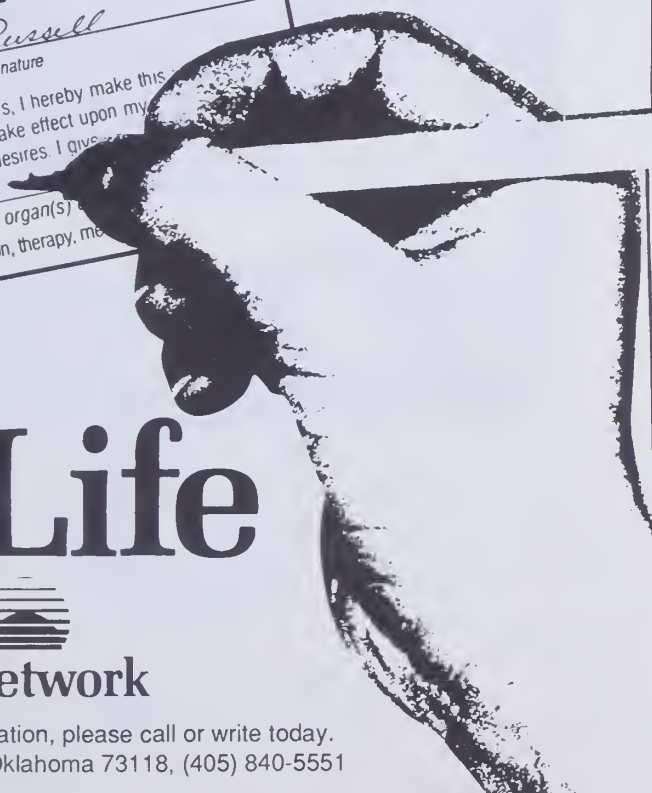
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## OSDH issues recommendations for disposal of biomedical waste



Recent national publicity regarding biomedical waste disposal issues has prompted numerous inquiries to the Oklahoma State Department of Health (OSDH) regarding the specific regulatory requirements for biomedical waste generators.

Biomedical waste can come from physicians' offices and clinics, dentists' offices and clinics, veterinarians, outpatient surgery and emergency clinics, hospitals, nursing homes, and other institutions or individuals providing health care services.

The state health department recommends that such wastes be identified and segregated from the remainder of the waste stream. They should be labeled appropriately and collected at the point of origin. Ideally, special attention should be given to the identification and segregation of chemical biomedical wastes, such as antineoplastic waste and radiological waste.

Biomedical waste packaging should consist of

tear-resistant red double plastic bags which are placed into rigid or semirigid containers marked with the universal biohazard symbol. Contaminated sharps should be collected, stored, and transported in specially designed sharps containers of rigid plastic. The Oklahoma State Department of Health recommends that sharps containers be red or marked with the universal biohazard symbol.


To protect health care workers, patients, and the public from accidental contact with biomedical waste, the waste should be managed to limit accidental contact. Temporary storage, prior to shipment off-site, should be in a secure location.

The Oklahoma State Department of Health recommends that biomedical wastes that are stored at the facility of origin longer than 24 hours be refrigerated at 45°F.

Once they have been packaged, biomedical wastes *should not* be compacted.

For the best management of biomedical wastes, the state health department recommends that the


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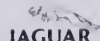
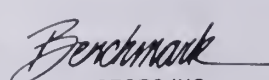




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waste be treated to render it noninfectious before it is sent to the landfill for final disposal. The preferred method of treatment is incineration in an incinerator permitted by the health department. Other acceptable treatment methods are chemical disinfection and autoclaving. The health department also suggests that antineoplastic wastes be incinerated only in incinerators designed and permitted to operate at temperatures sufficiently high to assure waste destruction. An alternative to incineration of antineoplastics is packaging and disposal as hazardous wastes at licensed hazardous waste facilities.

For more information on biomedical waste issues, contact the state health department at (405) 271-7155. 

## IN MEMORIAM

### 1989

John Hoyle Carlock, Jr., MD	January 19
Michael Bailey McCarty, MD	January 22
Alexander Shadid, MD	February 2
Moorman Paul Prosser, MD	February 12
Robert Vern Weger, MD	February 18
William Lawrence Bond, MD	March 26
Mary Edna Sippel, MD	April 10
Ruben Hilton Mayberry, MD	April 20
Norman Eugene Dearnbarger, MD	May 6
Gordon Kent Jimerson, MD	May 6
Orville McClure Woodson, MD	May 11
Robert Sears Davis, Jr., MD	May 13
James Richard Riggall, MD	May 30
Howard Choice Martin, MD	July 23
D. Evelyn Miller, MD	July 30
Nevin Wilson Dodd, MD	July 31
Alwyn Travers Kornblee, MD	August 7
Edward Keats Norfleet, MD	August 13
Wayman Jackson Thompson, MD	September 20
Rheba L. Huff Edwards, MD	September 30
George Harry Garrison, MD	October 5
Monroe Ruework Jennings, MD	October 27
Edmund Gordon Ferguson, MD	November 17
Don Lee Dycus, MD	December 6
Sylvester Robert Shaver, MD	December 16
Charles Edwards Leonard, MD	December 27

### 1990

John Justice Batchelor, MD	January 8
Fred W. Sellers, MD	January 11
Dewey Lee Mathews, MD	January 18

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## High flying surgeon operates on warbirds in his spare time

That old World War II warplane flying by at the airshow may have been piloted by William E. Harrison, Jr., MD. Dr Harrison is a Tulsa hand surgeon and OSMA member who has been deeply involved in restoring and exhibiting old warplanes for the past twenty years. He has bought and restored a

B-17, one of the workhorse bombers of World War II, and then gave it to the Experimental Aircraft Association (EAA) Museum in Oshkosh, Wisconsin. He still exhibits it occasionally at air shows for the museum.

Dr Harrison presently has five helicopters and

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A sleek DeHaviland "Venom," one of Dr Harrison's restored warplanes, gleams in the Tulsa sun. The Venom, a British fighter-bomber, was built in the 1950s and served in Malaysia. When asked if this was his favorite plane, Dr Harrison said no, he has no real favorites; "If it flies, I enjoy flying it." He has piloted everything from a Ford Trimotor to an F-4 Phantom.

two airplanes under reconstruction, and flies a rebuilt PT23 trainer and a Lockheed C-60 from Tulsa Riverside airport. The C-60 bears the sobriquet "Sweet Charlotte" in honor of his wife, Charlotte, and she enjoys and participates in the avocation with verve and enthusiasm.

Dr Harrison, often called Bill by his friends and colleagues, is a member of the Warbirds of America, an organization of airplane buffs dedicated to the preservation of the old warplanes of the world. The group owns and restores and keeps ancient airplanes flying, or in the custody of museums. Bill also belongs to the Confederate Air Force, another group that owns and preserves many of the old warplanes of the world, and has two wings in Oklahoma. Bill notes that his home airport at Tulsa is exactly half-way between the Harlingen, Tex, base of the Confederate Air Force, and the Oshkosh, Wisc, base of the EAA museum that houses the refurbished B-17.

Over the years, Dr Harrison has bought, restored, and sold or donated to museums about forty old warplanes. These old warbirds have been found everywhere, from a nearby trade school to the African nation of Zaire to El Salvador. Wherever he finds them, he gets them into flying condition, brings them back to Tulsa, and renovates them to exhibition condition. He then flies and demonstrates them in airshows everywhere, and Bill reports there is an airshow nearly every weekend through the summer. Attendance at six to seven airshows per season is customary for the Harrisons.

Despite the variety of plans and the many flying hours, including P51 pylon racing, Bill has had only one injury accident. He has lost an engine on one occasion and also crash-landed a Messerschmitt 109 when its landing gear collapsed. The one physical injury was a broken vertebra sustained when a Grumman Wigeon float plane broke up on a water landing a mile from shore. Bill reports that it was "kind of hairy" getting to shore, but the back healed to nearly normal.

Dr Harrison expresses a keen feeling for history

in relating to his past and present airplanes, and notes that the lessons of the past wars must be remembered in the approach to peace in the future. He derives great satisfaction in the preservation of the warbirds for a focus of remembrance for those who used them on combat missions. He recalls the feelings expressed by the combat veterans who react to his functioning planes. One veteran B-17 gunner showed his little grandson the gun turret, and with tears in his eyes, told some of his war experiences to the little boy. Witnessing such scenes transforms the restoration work into a labor of altruism. "I'm obsessed with it," Bill says.

Dr Harrison enjoys a most unusual hobby and preserves a precious slice of history for future generations. □

## REACTION TIME

### Tulsa doctor urges his colleagues to extend more professional courtesy

*To the Editor:* The information in a recent OSMA newsletter which noted the increasing cost of PLICO health insurance and the lack of professional courtesy being extended to fellow physicians was disturbing.

A few years ago Dr Eugene Feild made a plea to Oklahoma physicians not to charge one another.

Professional courtesy is an old and honorable tradition. The temptation to accept a fee because it will be paid through insurance leads to the same thing which causes us as physicians to criticize others who demand money or services beyond which

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## Reaction Time *(continued)*

they are entitled because these are "paid for by insurance."

This is a form of greed which in addition diverts us from the reality of the honor done us when a colleague places his confidence in us — it places too much of the relationship into the marketplace.

I urge you to repeat, and keep repeating if necessary, Dr Feild's message to us not to charge each other even if PLICO pays.

I know the hospitals will charge us — shame on them, but there are other regulations governing this.

—Paul A. April, MD  
Tulsa

## Editorial takes OKC reader back to Bastogne and "Battle of the Bulge"

*To the Editor:* What a wonderful experience it was, reading your editorial "A Cold December Night" in the December 1989 issue of the OSMA JOURNAL, as it relates to the practice of medicine, in which you state, "the memory of this rustic event still reminds me that the practice of medicine offers unique opportunities to express the noble aspect of the human spirit."

I can personally relate to your battle experience, having been "on the front line" as a BAR man (Browning Automatic Rifle machine gun) during the "Battle of the Bulge" in December 1944–January 1945 — just outside Bastogne. Though "scared to death" all the time, I was still proud of being there, and felt that I was serving the worthy cause of "freedom." I sometimes have to ask myself — in the light of the socialistic bureaucratic efforts controlling medicine — if it was worth it, but my answer is still an emphatic — yes!

—Harl N. Stokes  
Executive Vice President  
Oklahoma Academy of Family Physicians  
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## CALL FOR RESOLUTIONS

All resolutions to be presented to the Oklahoma State Medical Association House of Delegates Annual Meeting must be received in the executive offices no later than thirty (30) days prior to the meeting. This year's meeting will be May 3-5, 1990, at the Marriott Hotel in Oklahoma City.

County medical societies or individuals wishing to submit resolutions should mail them to OSMA, 601 Northwest Expressway, Oklahoma City, OK 73118. Should you need assistance in drafting such resolutions, please contact the executive offices.

**RESOLUTIONS MUST BE SUBMITTED  
ON OR BEFORE APRIL 2, 1990**

## DEATHS

### John Justice Batchelor, MD 1895 - 1990

John J. Batchelor, MD, a retired general practitioner, died January 8, 1990, in Oklahoma City. Dr Batchelor was a Life Member of the Oklahoma State Medical Association (OSMA) and a 1924 graduate of Yale University School of Medicine, New Haven, Conn. He was a veteran of both world wars, having served with the British Royal Air Force in World War I and the US Army in World War II.

### Charles Edwards Leonard, MD 1907 - 1989

Retired Oklahoma City psychiatrist Charles E. Leonard, MD, died December 27, 1989. Dr Leonard was graduated from the University of Oklahoma School of Medicine in 1932. A Life Member of the OSMA, he retired in 1984 and was living in Ft Smith, Ark, at the time of his death.



**Dewey Lee Mathews, MD**  
**1898 - 1990**

OSMA Life Member Dewey L. Mathews, MD, died January 18, 1990. Dr Mathews established a general practice in Tonkawa in 1926, four years after his graduation from the University of Texas Medical Branch in Galveston. His 60 years of practice in Tonkawa included 40 years as college physician for Northern Oklahoma College. Dr Mathews retired from practice in 1982.

**Fred W. Sellers, MD**  
**1911 - 1990**

Fred W. Sellers, MD, Mangum, an OSMA Life Member, died January 11, 1990. A general practitioner and surgeon, Dr Sellers earned his medical degree at Baylor University School of Medicine, Houston, Tex, in 1937. During World War II he served as a flight surgeon at several US bases. He retired from practice in 1975.

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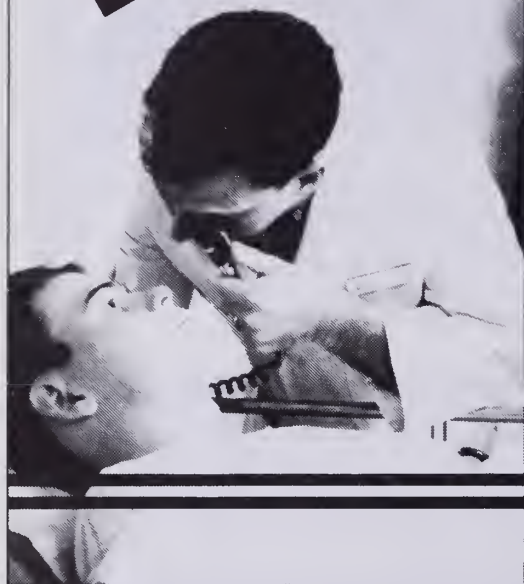
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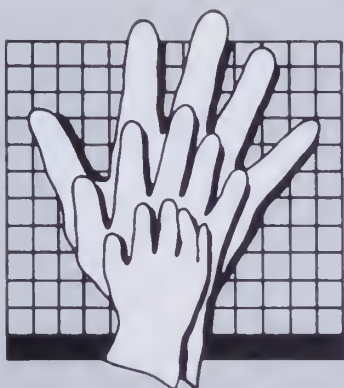


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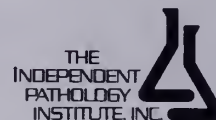
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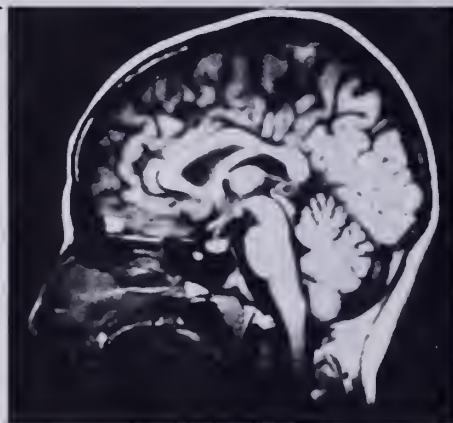
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### Style

All manuscripts should adhere to the style adopted by the American Medical Association as illustrated in *JAMA* and detailed in the AMA's *Manual of Style*. An abstract of 150 words or less should accompany each paper and should state (1) the exact question considered, (2) the key points of methodology and success of execution, (3) the key findings, and (4) the conclusion(s) directly supported by these findings. Footnotes, bibliographies, and legends for illustrations should be typewritten, double-spaced, on separate sheets. References are to be listed in the order of their appearance in the article.

### Illustrations

Illustrations other than the author's will not be accepted for publication unless accompanied by written permission from the original source. Illustrations should be labeled with the author's name and must be numbered in the order in which they are referred to in the article. The quality of all illustrations must be in keeping with the quality of the magazine.

### Reprints

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### News

Readers are encouraged to submit news items of interest to Oklahoma physicians. Where dates of meetings, etc., are important, please remember that each issue closes on the first day of the preceding month and reaches subscribers in the latter half of the month of publication.

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## Doctors' Day in the New Decade

**O**n March 30th, wives of physicians, auxiliaries, friends, and patients will celebrate and observe Doctors' Day. It has been fifty-seven years since Mrs Eudora Almond suggested to her Barrow County (Georgia) Medical Society Auxiliary that doctors be honored at an annual celebration. Even though her beloved husband (her greatest hero) did not practice with the computer technology, immense expansion of knowledge, unending pressures, and federal infringement of the nineties, his dedication to the art of healing deserved respect and appreciation.

Mrs Almond chose March 30th as the official day to honor all doctors since it was on that date, in 1842, that the famous Georgian Dr Crawford W. Long first used ether anesthesia in surgery.

As a symbol of love, charity, sacrifice, bravery, and courage, the red carnation was chosen as the flower to symbolize Doctors' Day. All doctors possess some or all of these qualities as they strive to give high quality health care to each patient they see.

The new decade brings unprecedented challenges to the medical profession, and only those who are truly dedicated to excellence will keep that "spirit" of the "greatest profession on earth" alive.

Doctors are asked to wear the red carnation on

their lapels as a well-deserved symbol of Doctors' Day.

Doctors' Day is observed in many different ways and activities. Scholarships or loan funds may be offered to medical students, equipment or needed hospital furniture donated. Auxiliaries may have blood drives, or send personal messages to physician's widows and retired physicians, and honor physicians who have practiced 30 years or longer, or who have made outstanding achievements or contributions.

The possibilities are numerous for emphasizing those contributions made by the medical profession and the impact the physicians make in the community.

The medical climate of the nineties is different, but the dedication and accomplishments of the physician and the sacrifices of the physician's family must not go unnoticed.

May every activity or celebration provided by local auxiliaries or hospitals that honors or pays tribute to the medical profession express sincere appreciation and the true "spirit" of Doctors' Day that began in 1933.

—Karen Ghormley  
State Chair, OSMA Auxiliary

■ **A special session on adolescent alcohol and drug abuse** will be held during the Annual Meeting of the Oklahoma State Medical Association (OSMA), May 3-5 in Oklahoma City. The session will feature representatives from the State Department of Education, the State Mental Health Department, the Oklahoma Alliance Against Drugs, and the OSMA. Volunteer physicians and spouses will receive educational materials and information to assist them in becoming knowledgeable leaders against adolescent drug abuse in their communities. Interested physicians are encouraged to contact Robert Block, MD, Chairman, OSMA Task Force on Adolescent Health, University of Oklahoma College of Medicine — Tulsa, 2815 S. Sheridan, Tulsa, OK 74129.

■ **"Facing the 21st Century: New Horizons in Women's Health Care"** is the title of an April meeting to be sponsored by the Department of Obstetrics and Gynecology, University of Oklahoma College of Medicine. The meeting will be held April 7-11 at the Marriott's Rancho Las Palmas Resort in Rancho Mirage, Calif. Also scheduled next month is "Current Problems in Pediatric Therapy XVI," a course designed to update pediatricians and generalists. It will be conducted April 27-29 at Fountainhead Resort, Eufaula. For further information on either meeting, contact the OU College of Medicine, Office of Continuing Medical Education, PO Box 26901, 3SP511, Oklahoma City, OK 73190, (405) 271-2350.

■ **Now available from the Oklahoma State Department of Health** is the *1988 Annual Summary of the Epidemiology of Communicable Diseases and Reportable Injuries in Oklahoma*. There is no charge for single issues. To obtain a copy, call or write General Communicable Diseases Division, Oklahoma State Department of Health, PO Box 53551, Oklahoma City, OK 73152, (405) 271-4060.

■ **"Loss Prevention Guide for Physicians,"** an audiocassette tape, is now available at no charge to all physicians insured by the Physicians Liability Insurance Company (PLICO). The tape is the sixth in PLICO's loss prevention series and is a one-hour condensed version of the seminar of the same name.

Recorded by Ed Kelsay, OSMA general counsel and PLICO loss prevention manager, the tape contains suggestions for avoiding professional liability situations. Previous tapes, addressing such topics as communication skills, the doctor-patient relationship, and allied health care personnel, are still available. Requests for tapes should be mailed to Debbie Thurmond, Oklahoma State Medical Association, 601 Northwest Expressway, Oklahoma City, OK 73118.

■ **Physicians and physician associates (PAs)** insured by PLICO are reminded that their coverage requires they attend a loss prevention seminar once every three years. Seminars have been scheduled throughout 1990, with the last to be conducted in Oklahoma City on Sunday, November 4, at a location to be announced. For a complete list of 1990 seminars and registration information, contact the OSMA.

■ **G. Rainey Williams, MD, professor and chairman** of the Department of Surgery, University of Oklahoma College of Medicine, was honored recently with the Dean's Award for Distinguished Medical Service. The award was presented at the sixth annual "Evening of Excellence" banquet, sponsored by the OU Health Sciences Center and the state's business, medical, and industrial communities, and hosted by the OU College of Medicine Alumni Association. Sharing the awards spotlight was the Oklahoma Medical Research Foundation, recipient of the newly created Dean's Recognition of a Distinguished Oklahoma Institution.

■ **Stillwater internist Mike Strange, MD,** has been elected president of the Board of Directors of the Oklahoma Foundation for Peer Review (OFPR). Dr Strange is a 1976 graduate of the University of Oklahoma College of Medicine and has been practicing in Stillwater for 10 years. Also elected to office by the OFPR were William O. Coleman, MD, Oklahoma City, first vice-president; Henry Harnish, DO, Enid, second vice-president; Howard B. Keith, MD, Woodward, secretary; and Dale W. Bratzler, DO, Tulsa, treasurer. □



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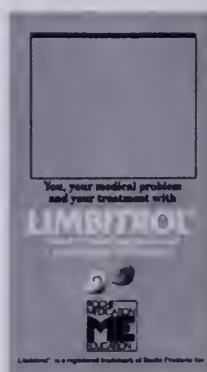
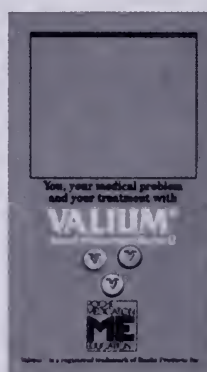
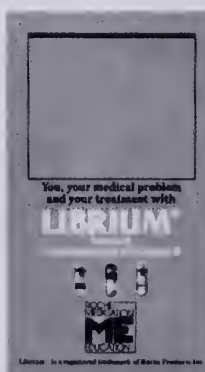
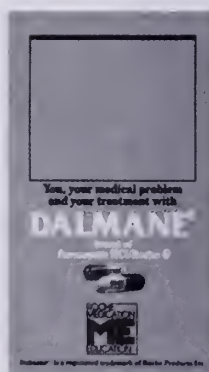


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The JOURNAL (ISSN 0030-1876) (USPS 285-000) is the official publication of the Oklahoma State Medical Association and is published monthly under the direction of the OSMA Board of Trustees. Editorial office is at 601 Northwest Expressway, Oklahoma City, OK 73118. Second class postage paid at Oklahoma City, OK 73125.

Subscription to the JOURNAL is included in membership dues. All other subscriptions are \$30 per year. Single issues are \$3 per copy, pre-paid, subject to availability.

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# JOURNAL

OKLAHOMA STATE MEDICAL ASSOCIATION

APRIL 1990

VOL. 83, NO. 4

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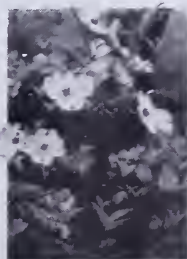
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## ABOUT THE COVER



Oklahoma dogwoods herald Earth Day 1990. It's a day to remember, says George Hulsey, MD, chairman of the National Wildlife Federation. Story on page 179.

Photo courtesy of Oklahoma Department of Wildlife. Art direction by Graphic Art Center, Oklahoma City.

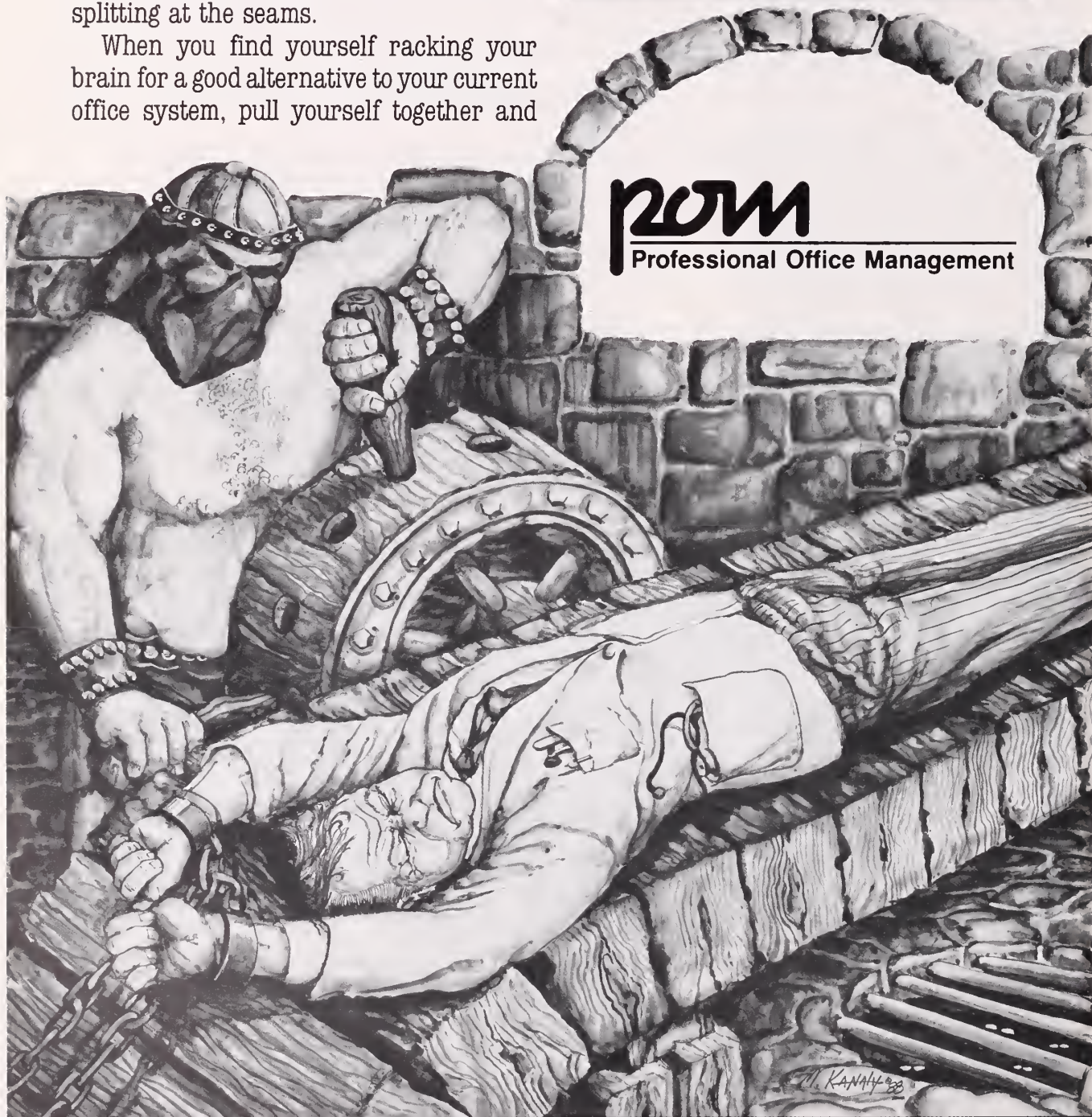
# Stretched to Your Limits?

Meeting the demands placed on today's busy medical professionals can be real torture, especially when annoying details like paperwork and personnel problems get in the way of practicing medicine. Doctors who try to double as office managers and bookkeepers soon feel like they are splitting at the seams.

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Yet consider, one three-ounce serving of lean sirloin contains 2.8 mg of iron, about forty to sixty percent of which is heme iron, the most bioavailable form. In addition, the presence of beef or other meats in a meal increases the bioavailability of nonheme iron from foods such as vegetables and grains.

Importantly, lean beef can also meet fat and cholesterol guidelines of most leading heart and health authorities. The how-to's are good

advice for almost anyone.

Start with "The Skinniest Six" shown below. None is more than 180 calories per three-ounce cooked, trimmed serving. All are easy to specify at the meat counter.

These six cuts also simplify portion control. Four ounces uncooked equals about three ounces cooked. Grilling, broiling and roasting add no extra fat in cooking. And the taste of beef makes it easy to dispense with fat-laden sauces.

Carefully chosen, prepared and served, "The Skinniest Six" provide an impressive list of essential nutrients for under 180 calories per three-ounce serving.

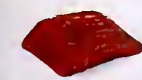
And as part of a specific plan to increase dietary iron, in a balanced diet beef can be one of the best-tasting recommendations you'll ever make.



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## "The Skinniest Six"\*



**Eye of Round**

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5.5 g total fat  
(2.1 g saturated fat)  
59 mg cholesterol



**Round Tip**

2.50 mg iron  
162 calories  
6.4 g total fat  
(2.3 g saturated fat)  
69 mg cholesterol



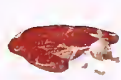
**Top Loin**

2.10 mg iron  
172 calories  
7.6 g total fat  
(3.0 g saturated fat)  
65 mg cholesterol



**Top Round**

2.45 mg iron  
162 calories  
5.3 g total fat  
(1.8 g saturated fat)  
72 mg cholesterol



**Sirloin**

2.85 mg iron  
177 calories  
7.4 g total fat  
(3.0 g saturated fat)  
76 mg cholesterol



**Tenderloin**

3.05 mg iron  
174 calories  
7.9 g total fat  
(3.1 g saturated fat)  
72 mg cholesterol

*Uncooked whole cuts are shown for purpose of identification.*

## Composite of cooked retail cuts of beef\*

Protein	25.9 g
Iron	2.7 mg
Zinc	6.0 mg
Vitamin B-12	2.28 mcg
Thiamin	.08 mg
Niacin	3.6 mg
Sodium	55 mg
Total Fat	8.7 g
(Saturated Fat)	(3.4 g)
Cholesterol	76 mg
Calories	189

1. United States Department of Agriculture. "Nationwide Food Consumption Survey, Continuing Survey of Food Intakes by Individuals. (NFCS, CSFII)" Report No. 86-1. \*Nutrients in 3 oz. trimmed and cooked: USDA Handbook 8-13, Rev 1986.

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rapidly and effectively<sup>4,5</sup>
- Dosage for adults with active  
duodenal ulcer is 300 mg once nightly  
(150 mg b.i.d. is also available)

### References

1. *USP DI Update*, September/October 1988, p. 120.
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### AXID<sup>®</sup> nizatidine capsules

**Brief Summary** Consult the package literature for complete information.

**Indications and Usage:** 1. *Active duodenal ulcer*—for up to eight weeks of treatment. Most patients heal within four weeks.

2. *Maintenance therapy*—for healed duodenal ulcer patients at a reduced dosage of 150 mg h.s. The consequences of therapy with Axid for longer than one year are not known.

**Contraindication.** Known hypersensitivity to the drug. Use with caution in patients with hypersensitivity to other H<sub>2</sub>-receptor antagonists.

**Precautions:** *General*—1. Symptomatic response to nizatidine therapy does not preclude the presence of gastric malignancy.

2. Dosage should be reduced in patients with moderate to severe renal insufficiency.

3. In patients with normal renal function and uncomplicated hepatic dysfunction, the disposition of nizatidine is similar to that in normal subjects.

**Laboratory Tests**—False-positive tests for urobilinogen with Multistix<sup>®</sup> may occur during therapy.

**Drug Interactions**—No interactions have been observed with theophylline, chlorazepoxide, lorazepam, lidocaine, phenytoin, and warfarin. Axid does not inhibit the cytochrome P-450 enzyme system; therefore, drug interactions mediated by inhibition of hepatic metabolism are not expected to occur. In patients given very high doses (3,900 mg) of aspirin daily, increased serum salicylate levels were seen when nizatidine, 150 mg b.i.d., was administered concurrently.

**Carcinogenesis, Mutagenesis, Impairment of Fertility**—A two-year oral carcinogenicity study in rats with doses as high as 500 mg/kg/day (about 80 times the recommended daily therapeutic dose) showed no evidence of a carcinogenic effect. There was a dose-related increase in the density of enterochromaffin-like (ECL) cells in the gastric oxyntic mucosa. In a two-year study in mice, there was no evidence of a carcinogenic effect in male mice, although hyperplastic nodules of the liver were increased in the high-dose males as compared with placebo. Female mice given the high dose of Axid (2,000 mg/kg/day, about 330 times the human dose) showed marginally statistically significant increases in hepatic carcinoma and hepatic nodular hyperplasia with no numerical increase seen in any of the other dose groups. The rate of hepatic carcinoma in the high-dose animals was within the historical control limits seen for the strain of mice used. The female mice were given a dose larger than the maximum tolerated dose, as indicated by excessive (30%) weight decrement as compared with concurrent controls and evidence of mild liver injury (transaminase elevations). The occurrence of a marginal finding at high dose only in animals given

an excessive and somewhat hepatotoxic dose, with no evidence of a carcinogenic effect in rats, male mice, and female mice (given up to 360 mg/kg/day, about 60 times the human dose), and a negative mutagenicity battery are not considered evidence of a carcinogenic potential for Axid.

Axid was not mutagenic in a battery of tests performed to evaluate its potential genetic toxicity, including bacterial mutation tests, unscheduled DNA synthesis, sister chromatid exchange, mouse lymphoma assay, chromosome aberration tests, and a micronucleus test.

In a two-generation, perinatal and postnatal fertility study in rats, doses of nizatidine up to 650 mg/kg/day produced no adverse effects on the reproductive performance of parental animals or their progeny.

**Pregnancy—Teratogenic Effects—Pregnancy Category C**—Oral reproduction studies in rats at doses up to 300 times the human dose and in Dutch Belled rabbits at doses up to 55 times the human dose revealed no evidence of impaired fertility or teratogenic effect, but, at a dose equivalent to 300 times the human dose, treated rabbits had abortions, decreased number of live fetuses, and depressed fetal weights. On intravenous administration to pregnant New Zealand White rabbits, nizatidine at 20 mg/kg produced cardiac enlargement, coarctation of the aortic arch, and cutaneous edema in one fetus, and at 50 mg/kg, it produced ventricular anomaly, distended abdomen, spina bifida, hydrocephaly, and enlarged heart in one fetus. There are, however, no adequate and well-controlled studies in pregnant women. It is also not known whether nizatidine can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Nizatidine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

**Nursing Mothers**—Studies in lactating women have shown that 0.1% of an oral dose is secreted in human milk in proportion to plasma concentrations. Because of growth depression in pups reared by treated lactating rats, a decision should be made whether to discontinue nursing or the drug, taking into account the importance of the drug to the mother.

**Pediatric Use**—Safety and effectiveness in children have not been established.

**Use in Elderly Patients**—Healing rates in elderly patients were similar to those in younger age groups as were the rates of adverse events and laboratory test abnormalities. Age alone may not be an important factor in the disposition of nizatidine. Elderly patients may have reduced renal function.

**Adverse Reactions:** Clinical trials of varying durations included almost 5,000 patients. Among the more common adverse events in domestic placebo-controlled trials of over 1,900 nizatidine patients and over 1,300 on placebo, sweating (1% vs 0.2%), urticaria (0.5% vs <0.01%), and somnolence (2.4% vs 1.3%) were significantly more common with nizatidine. It was not possible to determine whether a variety of less common events was due to the drug.

**Hepatic**—Hepatocellular injury (elevated liver enzyme tests or alkaline phosphatase) possibly or probably related to nizatidine occurred in so patients. In some cases, there was marked elevation (>500 IU/L) in SGPT or SGPT and, in a single instance, SGPT was >2,000 IU/L. The incidence of elevated liver enzymes overall and elevations of up to three times the upper limit of normal, however, did not significantly differ from placebo patients. Hepatitis and jaundice have been reported; abnormalities were reversible after discontinuation of Axid.

**Cardiovascular**—In clinical pharmacology studies, short episode of asymptomatic ventricular tachycardia occurred in two individuals administered Axid and in three untreated subjects.

**CNS**—Rare cases of reversible mental confusion have been reported. **Endocrine**—Clinical pharmacology studies and controlled clinical trials showed no evidence of antiandrogenic activity due to nizatidine. Impotence and decreased libido were reported with equal frequency in patients on nizatidine and those on placebo. Gynecomastia has been reported rarely.

**Hematologic**—Fatal thrombocytopenia was reported in a patient treated with nizatidine and another H<sub>2</sub>-receptor antagonist. This patient had previously experienced thrombocytopenia while taking other drugs. Rare cases of thrombocytopenic purpura have been reported.

**Integumentary**—Sweating and urticaria were reported significantly more frequently in nizatidine- than in placebo-treated patients. Rash, exfoliative dermatitis were also reported.

**Hypersensitivity**—As with other H<sub>2</sub>-receptor antagonists, rare cases of anaphylaxis following nizatidine administration have been reported. Because cross-sensitivity among this class has been observed, H<sub>2</sub>-receptor antagonists should not be administered to those with a history of hypersensitivity to these agents. Rare episodes of hypersensitivity reactions (eg, bronchospasm, laryngeal edema, rash, and eosinophilia) have been reported.

**Other**—Hyperuricemia unassociated with gout or nephrolithiasis reported. Eosinophilia, fever, and nausea related to nizatidine have been reported.

**Overdosage:** Overdoses of Axid have been reported rarely. If overdose occurs, activated charcoal, emesis, or lavage should be considered; with clinical monitoring and supportive therapy. Renal dialysis for six hours increased plasma clearance by approximately 84%.

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Additional information available to the profession on request.



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## Sail Ho!

Since the days of the tall sailing ships, insurance has been an integral part of commerce. It was originated to prevent the total loss of capital from rare, unpredictable but catastrophic events in the sailing ship business. As the device proved useful, it spread to other property losses from rare events such as fire. Investors were grateful for the "stop loss" nature of insurance, and lesser properties and lesser events come to be insured.

About a hundred years ago, Germany began experimenting with "social insurance" with an attempt to "insure" against undesirable human events such as unemployment, physical disability, and medical expenses. In contrast to shipping insurance, "social insurance" devices require the coerced inclusion of specified population groups as a precondition of operation.

Many other countries have since joined these experimentations, but a century later, their use is still attended by turmoil and trouble. Inequities and injustices abound in the various systems. Although a definite social or financial benefit has not yet been clearly achieved, significant political pressure continues for wider programs.

The social policy tinkers have forgotten the vast difference between the commercial insurance concept and the social "insurance" concept. Commercial insurance deals with property, and with rare and unpredictable events with catastrophic consequences to property. Social "insurance" deals with human events that are common and have consequences that are not catastrophic but are merely undesirable, and are so frequent that only the timing is unknown. The human subjects of "social insurance" partly control the timing and extent of the undesirable events, and some even reap undeserved rewards from the unwanted event. On the other hand, the properties covered by commercial insurance are the passive recipients of random natural violence, and the best the insured investors can do is to reduce monetary losses; the insured *never* profits.

Medical "insurance" has become a misrepresentation of the word *insurance* that has been perverted for social engineering purposes. The ordinary word *insurance* can not be correctly applied to such radically different instruments.

It is probably true in the United States that current high tech, high cost medical care cannot be generally delivered without a risk-spreading device for unusual, high-dollar treatments. But the concept of insurance based on casualty losses is inept for the purpose, and the scheme becomes totally unworkable when first dollar loss coverage for routine care is attempted. The present medley of schemes fails to "insure" a significant part of our population, while promoting fiscal irresponsibility and economic dependency for a majority of people.

In the end the consumer must pay for what is consumed, and the eventual solution to the current health care quandary must lie in a government policy revision that returns the patient to the payment loop in a decisive role.

Let us relabel "medical insurance." A more accurate name for the present system would be "medical expense case management account" or possibly "health cost trust." An accurate descriptive label might improve our society's understanding of the system.

When the medical "insurance" problem is eventually solved, the purchaser of health care — the patient — will have reasserted the ability and the right to control the payment of the physician, the nurse, the hospital, the laboratory and all the ancillary providers. All consumers and politicians will have come to know that it is not an insurance system like that invented for the venturesome sailing ships of yesterday.

Sail Ho!

*Ray V. McIntyre, M.D.*



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## Teamwork!

My year as your president is quickly coming to an end. When we started the year at the last House of Delegates meeting, I proposed as my slogan for the year: Stand PAT with participation, action, and teamwork.

Participation has been better as we have attempted to screen new members to our various councils and committees and include those who agreed to be active in the work of the organization. We also have attempted to make it less inconvenient for individuals to participate by varying the location of the meetings and having more at a "half-way" point in Stroud. I was concerned that the Tulsa members particularly were becoming less involved because of the location and timing of so many meetings.

The organization has continued to be very active in its functions and our staff, which is probably not surpassed in quality by any other state medical association, has continued to be on top of the issues and problems and continues to take care of the day-to-day activities and responsibilities in great fashion. We have accomplished much this year by our involvement in task forces, lobbying activities, development of programs, re-establishment of working relationships, and many other areas. The organization is very active and productive, and it would be great if all our members could be fully aware of what the organization accomplishes on our behalf.

Teamwork was a major concern as the year began, as it is in any organization. Unity and teamwork has never been more important than it is now. Outside forces are deliberately working to split



organized medicine and specialties into splinter groups so they can be more easily controlled. OSMA represents all physicians and specialties and approaches issues with that thought foremost in mind. It is impossible therefore, for everyone to be completely satisfied with our handling or position on every issue. Playing within the rules of the game, what might benefit the rural physician may hurt the urban physician, for example. Compared to most states, we in Oklahoma have a generally good situation. Because of OSMA and our unity, as was well pointed out by PLICO President Dr Alton Brown recently, we have an extremely good position in the medical liability and health insurance arena. It would be a disaster to allow somewhat petty concerns to split the organization and ultimately destroy what has been accomplished by our pulling together so effectively.

I certainly don't agree with every position and policy that our parent organization, AMA, develops and doubt that anyone in the state does either, but the overall picture and accomplishments, once we are informed and realize what they are, more than justify our support. The same is true of OSMA. If there is a position that we disagree with, we should work within the system to alter or change it and not just criticize and split. We need to develop more leaders within the organization and inject new ideas and innovative thinking at all levels of participation. Our new president, Dr Perry Lambird, is one who should inspire confidence and loyalty throughout the organization. Let's continue to participate as a TEAM under Perry's leadership.

A handwritten signature in dark ink, which appears to read "Dr. Perry Lambird".

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# Unusual Skin Sites of Herpes Simplex Eruptions: Delay in Diagnosis

Clifford G. Wlodaver, MD; Ronald A. Greenfield, MD

Whereas Herpes simplex labialis and genitalis are common and simple to diagnose, herpetic eruptions in other areas are relatively rare and often misdiagnosed. We report five cases of Herpes simplex eruption at unusual sites. Diagnosis was delayed up to 20 years and resulted in unnecessary antibiotic treatment. The recurrent nature of this eruption is the key to diagnosis.

**H**erpes simplex commonly erupts on the vermilion border of the lips or on the genitalia, and typical sores are easily diagnosed by inspection. Eruptions on the finger and in the perianal area are also relatively common.<sup>1</sup> Herpes simplex eruptions elsewhere on the body are uncommon, however, and frequently result in misdiagnosis and inappropriate management. Five cases of unusual sites of herpes simplex eruption are presented, recurrence being one of the keys to diagnosis.

## Case #1

A 34-year-old white male had been having recurrent eruptions on his face since he was 19 years old. The first attack occurred when he was a college wrestler, and he recalled teammates with similar eruptions. He described the eruption as vesicular and associated with pruritis and a mild flu-like malaise, usually occurring on his forehead and occasionally on his chin and lips as well. He states that the vesicles

evolved to ulcers, then crusts, and ultimately resolved within 7 to 10 days. There were approximately two recurrences per year, often precipitated by fatigue and stress. One attack followed a sunburn. Most of the attacks had been treated with erythromycin on the presumption that they were bacterial infections. Physical examination during one of the attacks was normal except for two small vesicles on the vermilion border of his lower lip and a crop of crusted ulcers on the chin. Viral culture of the lip vesicle grew Herpes simplex. Physical examination during another attack showed a crop of vesicular lesions on his forehead, viral culture of which grew Herpes simplex. The patient has not been treated and continues to have approximately one to two recurrences of the forehead lesions per year.

## Case #2

A 31-year-old female developed an eruption on the posterior aspect of her right thigh. This began with local pruritis; pain and vesicles occurred 24 hours later, then tender inguinal adenopathy. Her history was negative for insect bites and trauma to the area, and there had been no known exposure to Herpes. On physical examination there was a crop of vesicles on the right posterior thigh surrounded by a 10 cm area of inflammation. There was tender right inguinal adenopathy. A Tzanck preparation showed multinucleated giant cells and a culture grew Herpes simplex. The eruption resolved spontaneously within two weeks. The patient was lost to follow-up thereafter.

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### Case #3

An 18-year-old male developed a vesicular eruption in the periungual area of the right second finger. This eruption recurred on four occasions over the ensuing year. He was seen by other physicians and each attack was treated with antibiotics, although bacterial cultures were negative. The patient recalled that the first attack developed a few days after digital-genital contact with his girlfriend. There is no information available on whether or not she had herpes genitalis. On physical examination there was a 5 mm bulla in the periungual region of the right second finger. A viral culture grew Herpes simplex. Bacterial cultures were negative. There was no therapy and the patient was lost to follow-up.

### Case #4

A 44-year-old female had recurrent facial lesions for 20 years, approximately two episodes per year. They occurred in the medial corner of her left eye, extending down toward the nose. The lesions began with paresthesias, after which "water blisters" developed, which ultimately ruptured and then formed scabs. Some mild malaise accompanied these attacks. The attacks appeared at no predictable time although they were sometimes precipitated by excessive fatigue. She had seen several different physicians for this problem and was told she had a "Staph infection" and had been treated with antibiotics on multiple occasions. Within a two-week period, the lesions resolved. Physical examination during one of the attacks showed a crop of vesicles and surrounding erythema, measuring 1.5 cm in diameter, extending from the medial aspect of her left eye toward the left nostril. There were a few small, slightly tender nodes in the left submandibular area. A culture of the vesicles grew Herpes simplex. The patient was treated with acyclovir capsules, 200 mg PO three times daily for several months, during which time the eruption did not recur.

### Case #5

A 33-year-old male had a 5-year history of episodic pain, erythema, and edema of the right forearm. Attacks occurred approximately every 2 months and lasted about 10 days. After 3 years of such recurrences, some edema and pain persisted between the acute flares. Vesicles had never been noticed. The patient was treated with a variety of antibiotics and anti-inflammatory agents, but these produced no improvement. Physical examination during an attack revealed two small vesicles in the digital web

between the right third and fourth fingers, and right forearm inflammation. A Tzanck smear of the vesicles showed multinucleate giant cells and a viral culture grew Herpes simplex. Treatment with acyclovir capsules, 400 mg, 5 times daily for 7 days lessened the intensity and duration of the attack. Suppression of subsequent attacks was accomplished with acyclovir capsules, 200 mg, 3 times daily, but relapse occurred within 2 weeks of its discontinuation. Patient-initiated early episodic treatment with acyclovir, 200 mg, 5 times daily for 7 days has been effective in reducing the pain and swelling associated with the recurrences, and limiting their duration to 24 to 48 hours. The arm became free of pain and edema between episodes.

### Discussion

When a patient presents with typical herpes labialis or herpes genitalis, the diagnosis is straightforward. Herpetic whitlow and perianal herpes are other relatively common sites of involvement. The former is sometimes misdiagnosed as bacterial paronychia; the latter recently presenting in pronounced form, with particularly deep and widespread ulcerations, as a manifestation of acquired immune deficiency syndrome (AIDS).<sup>2</sup> Herpes simplex eruptions elsewhere on the body are relatively uncommon, often resulting in misdiagnosis and inappropriate management, as illustrated by the cases herein.

Case #1 qualifies as "herpes gladiatorum" a syndrome described in 1964 by Selling and Kibrick.<sup>3</sup> Our patient appears to have contracted Herpes simplex during his days as a wrestler. However, the association was not made for 15 years, during which time he saw several physicians and received several courses of antibiotics for presumed bacterial infections.

In Case #4, Herpes also occurred on the face, but the initial infection cannot be traced to any particular exposure or autoinoculation. Over a period of 20 years, this patient too had seen several physicians and received several courses of antibiotics for "recurrent Staph infection."

Case #3 can be classified as a "herpetic whitlow." Whereas fingertip involvement has previously been associated with healthcare workers, Gill et al have recently demonstrated that this infection may be even more common in non-healthcare workers.<sup>4</sup> Our patient was not a healthcare worker. In his case, the initial infection can be dated to digital-genital sexual contact. Herpetic whitlow as part of genital virus infection has been reported.<sup>5</sup>

Case #2 is noteworthy in that the eruption occurred on the posterior aspect of the mid thigh, an area that invariably comes into contact with toilet seats. Herpes simplex may remain viable on inanimate objects for 2 to 3 hours,<sup>6</sup> and it could be presumed that the disease was contracted in this manner.

The unusual presentation of Case #5, recurrent arm inflammation over a 5-year period, defied diagnosis until vesicular lesions were specifically sought and then cultured for virus. Herpes simplex lymphangitis and lymphedema complicating herpetic hand infections has been reviewed recently by Sands and Brown.<sup>7</sup>

The major clue, indeed the key to diagnosis of Herpes simplex infection in cases 1, 3, 4, and 5 was the recurrent nature of the eruption over a period of several months to years. This emphasizes the importance of a careful history, particularly in regard to recurrences. When a vesicular eruption recurs in the same area and evolves to ulcers and then crusts over a period of days, there is arguably no differential diagnosis. Laboratory confirmation is generally not necessary.

Treatment of these lesions can perhaps be generalized from the literature on treatment of herpes labialis and genitalis. Essentially, there is no

effective treatment. On the other hand, acyclovir can be used as prophylaxis against recurrences. For recurrent herpes genitalis, continuous acyclovir can eliminate, or at least decrease the frequency of recurrences.<sup>8</sup> Similar efficacy might occur for nongenital lesions as well.

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#### The Authors

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Ronald A. Greenfield, MD, also board certified in internal medicine and infectious disease, is an associate professor of medicine at OUHSC. He earned his medical degree at State University of New York-Upstate Medical Center, Buffalo.

## Coming next month

Scheduled for publication in May are a paper on spontaneous splenic rupture secondary to angiosarcoma and a commentary on malignant melanoma.

## Unusual Causes of Renal Failure in Diabetics: Two Case Studies

T.V. VenkataRaman, MD; Fay Knickerbocker, MD; Carol V. Sheldon, MD

**An atypical course of diabetic nephropathy may signal an associated glomerulonephritis or other complicating illness. Two cases illustrate the importance of seeking reversible causes of renal dysfunction in diabetics.**

**D**iabetic nephropathy is a common clinical entity and is the reason for 30% to 40% of patients entering renal dialysis programs. Diabetic renal disease progresses through a proteinuric phase, a phase of renal insufficiency with or without hypertension, and finally end-stage renal failure. There is often a slow progression of the disease, and generally 12 to 15 years elapse from the detection of insulin-dependent diabetes mellitus to chronic renal failure. However, an atypical course of diabetic nephropathy may signal an associated glomerulonephritis or other complicating illness. This article describes the course of two diabetic patients who had a coexisting problem accounting for acute renal failure.

A 67-year-old white female with a 20-year history of insulin-dependent diabetes mellitus and hypertension was admitted to the hospital with a foot infection. The infection developed after she stepped on a piece of glass one week prior to admission. She was initially treated with amoxicillin and cefadroxil and she had been taking captopril and HCTZ/triamterene for her hypertension.

There was past history of treatment for a right leg abscess with ticarcillin/clavulanate in June of

1986, at which time BUN of 13 mg% and serum creatinine of 1.1 mg% had been recorded. Except for a remote history of appendectomy and hysterectomy, her medical history was negative.

On admission into the hospital on June 23, 1988 she was febrile with an oral temperature of 100.2°F and had cellulitis of the right foot. There were no signs of congestive heart failure, and the kidneys were not palpable or tender. Optic fundus examination showed the characteristic changes of diabetic retinopathy.

A culture taken from the foot wound grew *Staphylococcus aureus* and oxacillin was started. The patient was continued on captopril, furosemide, and metolazone. A progressive azotemia developed, and relevant laboratory values are summarized in Table 1.

After a generalized erythematous rash developed, both captopril and oxacillin were discontinued.

Table 1. Laboratory Values for Case #1

	6/23/88	6/27/88	6/29/88	7/1/88
BUN	23	23	39	54
Creat.	1.2	1.1	1.5	2.6
UA	Neg	—	FeNa 0.18%	Spgr 1012, Protein 100 mg%, 3+ blood, 4-6 RBC/hpf, 25-30 WBCs/hpf, OCC WBC clump

Direct correspondence to T.V. VenkataRaman, MD, 1110 North Classen Boulevard, #200, Oklahoma City, OK 73106.



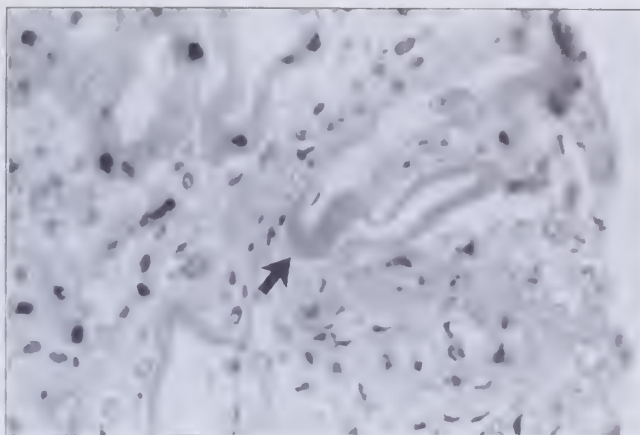
Renal ultrasound showed normal sized kidneys bilaterally (11.2 cm right and 11.9 left) with a 2.5 cm cyst at the lower pole of the right kidney. Twenty-four-hour urinary protein excretion was 660 mgs. A percutaneous renal biopsy was performed on July 5 and this showed acute postinfectious glomerulonephritis. Figure 1 demonstrates hyalinosis of a vessel wall indicating underlying diabetes mellitus. In light microscopy with hematoxylin and eosin (H&E) stain, glomeruli with typical proliferative and exudative changes were present (Fig 2). On electron microscopy, the typical subepithelial deposits seen with postinfectious glomerulonephritis are identified (Fig. 3).

Immunofluorescence revealed 3+ staining for IgG in the mesangium and basement membrane, and 4+ diffuse staining for C'3 in the mesangium and basement membrane.

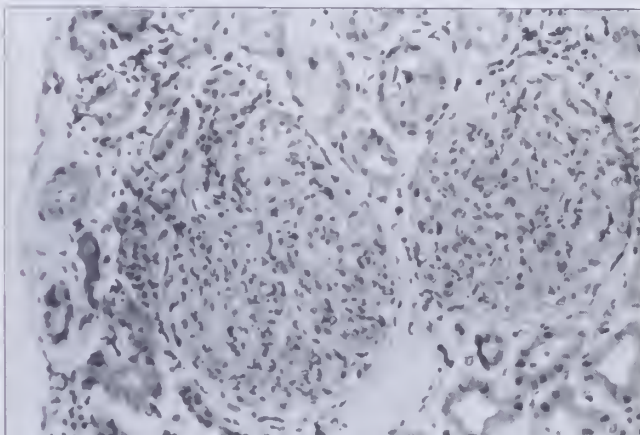
The steroids which had been started empirically prior to obtaining the renal biopsy were then slowly tapered and at the time of discharge on July 14 the BUN was 141 mg%, and the serum creatinine was 2.2 mg%. The elevated BUN was believed to be due to the steroid therapy. On July 30, the BUN was down to 30 mg% and the serum creatinine was 1.3 mg%. A follow-up UA on July 27 showed 3+ blood but no protein or casts.

The second illustrative case is a 47-year-old white female with a 32-year history of diabetes mellitus who developed acute bilateral flank pain on December 10, 1988. The initial evaluation was at another institution, and the patient was told that she had renal failure and elevated serum potassium. She was discharged on oral sodium polystyrene sulfonate and citrate solution. However, back and abdominal pain continued, and she was hospitalized January 1, 1989. There was a history of previous C-sections, and hypertension present for one year.

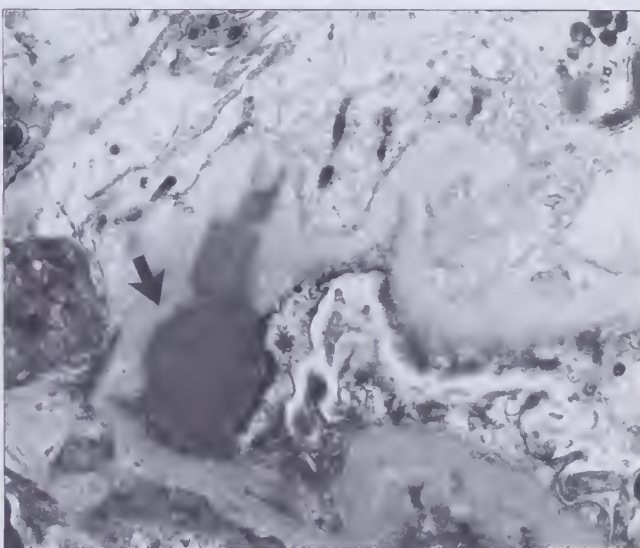
The physical examination revealed an afebrile patient, with BP of 180/74 mmHg and a tachycardia at 100-108/min. She had significant tenderness over the right flank and kidney, but there was no abdominal bruit. She had fundoscopic evidence of diabetic retinopathy. At admission, laboratory tests showed anemia (hemoglobin 8.6 gm% after receiving 2 units of packed cells at previous hospital), thrombocytopenia with initial platelet counts varying from 56,000 to 70,000, and renal failure was indicated by the BUN of 111 mg% and a serum creatinine of 11.4 mg%. Urinalysis showed 3+ proteinuria with microscopic RBCs and WBCs, but no casts. The urine culture was negative. Renal ultrasound examination



**Figure 1.** Kidney vessel with hyalinosis (arrow). Hematoxylin and eosin stain. 500x.



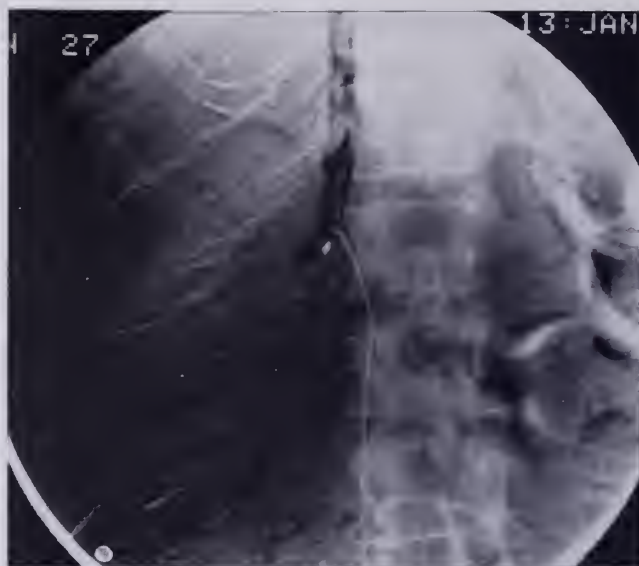
**Figure 2.** Kidney with two glomeruli exhibiting diffuse increase in cellularity and numerous neutrophils. Hematoxylin and eosin stain. 200x.



**Figure 3.** Kidney electron micrograph demonstrating dense deposit, so-called "hump" (arrow), in subepithelial zone of capillary basement membrane. 24,000x.



**Figure 4.** Right renal arteriogram with nephrogram effect but no visualization of renal vein.



**Figure 5.** Inferior vena cava is patent but no filling evident in right renal vein.

showed the right kidney measured 10.4 cm in length and the left kidney 12.2 cm in length. There was no evidence of hydronephrosis. A cystoscopy and retrograde pyelogram were normal.

The back pain and right flank tenderness continued, and on the third hospital day, bilateral renal vein studies, and renal arteriograms showed bilateral renal vein thrombosis. Figure 4 shows the right renal artery study with a nephrogram effect, but no filling in the right renal vein. Figure 5 shows the right renal vein study with a patent inferior vena cava but no flow from the renal vein. Figure 6 shows the left renal artery study with nephrogram effect and collateral flow through the ovarian vein. Selective left renal vein injection (Fig 7) confirmed the renal vein thrombosis.

The patient received hemodialysis, and a percutaneous right renal biopsy showed diffuse and nodular glomerulosclerosis (Fig 8). Though not pictured here, there were foci of eosinophilic infiltrates in the interstitium, a finding that has been reported with renal vein thrombosis.<sup>1</sup> The biopsy also documented the typical fibrin cap lesion seen in glomerular capillaries of diabetics (Fig 9). This patient is still receiving maintenance hemodialysis, and there has been no renal recovery for the past four months.

## Discussion

There is agreement that an atypical course of diabetic nephropathy can be defined as (1) clinical proteinuria despite short history of IDDM (less than 6 to 8 years), (2) nephropathy without the presence

of retinopathy, (3) rapid deterioration of renal function, and (4) impairment of renal function without antecedent proteinuria, which may demand further diagnostic evaluation.<sup>2</sup> In evaluating rapid decline in renal function in a diabetic, one seeks reversible factors:

(1) Has the patient taken potentially nephrotoxic drugs recently? Drug-induced nephrotoxicity can be a potential problem for any patient, and diabetics are more vulnerable to drug toxicity because of associated vascular disease and altered pharmacokinetics of the drug. Analgesic-induced acute papillary necrosis is very common in diabetics, and should be in the differential diagnosis of every diabetic presenting with rapidly declining renal function. Similarly, aminoglycoside-induced toxicity and NSAID-induced prostaglandin inhibition could be more frequent in diabetics.

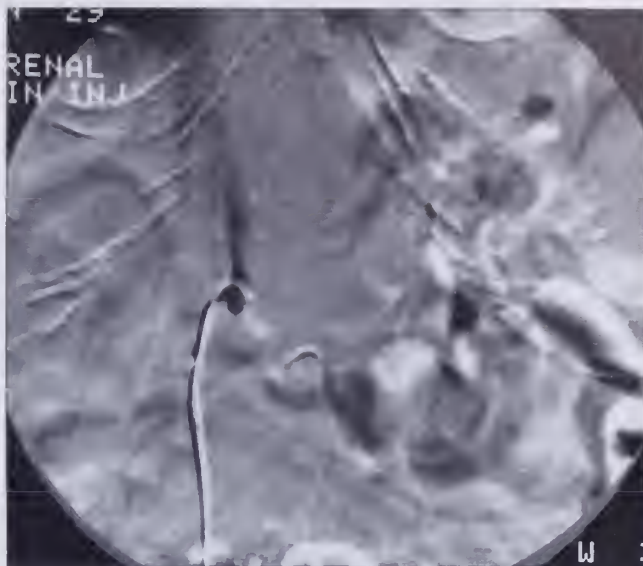
(2) If the diabetic patient has been a hypertensive, has the blood pressure been more difficult to control recently? Has the rapid decline in renal function occurred after the use of ACE inhibitors for control of hypertension? With the coexistence of atherosclerosis, the possibility of atheromatous renal artery stenosis complicating the hypertension in the diabetic patient should be considered. ACE inhibitors have been shown to cause a decline in glomerular filtration rate, and this is exaggerated with coexisting renal artery narrowing.

(3) Could the diabetic patient have a coexisting glomerulonephritis? Glomerulonephritis of various types — proliferative, membranous, membranoproliferative, rapidly progressive glomerulo-





**Figure 6.** Left renal arteriogram with filling of ovarian vein but not the renal vein.

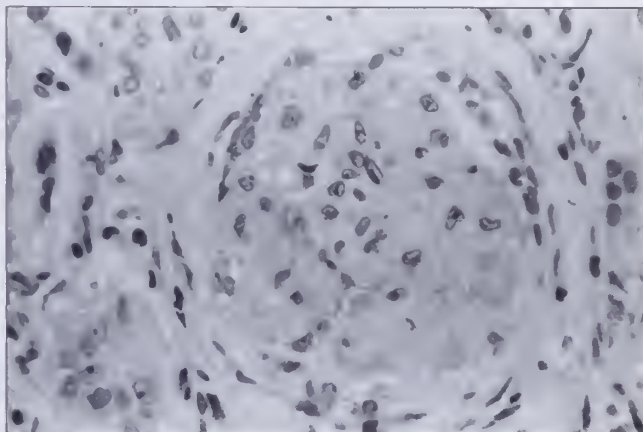


**Figure 7.** Left renal vein study showing no filling in renal vein.

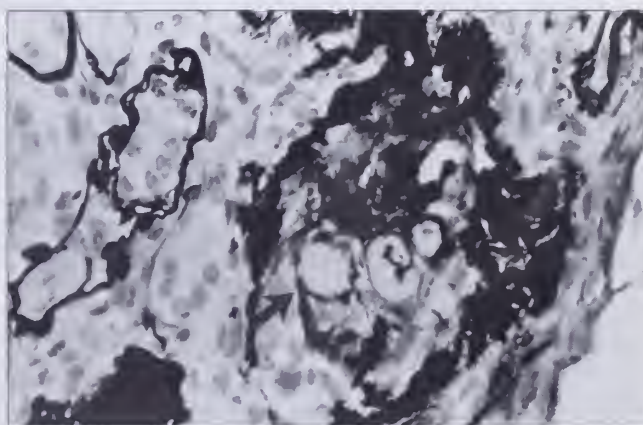
nephritis, etc — have been found with a coexisting diabetic nephropathy.<sup>3</sup> Hommel and associates, who biopsied a group of IDDM patients solely because of erythrocyturia, demonstrated diabetic glomerulosclerosis in all of the patients, but a superimposed nondiabetic glomerular disease also was present in 60% of the group.<sup>4</sup> Hematuria alone is not a good clinical clue to the problem of coexisting glomerulonephritis. In two reports including a total of 280 renal biopsies in diabetic patients, hematuria was found in 28% and 48% of patients with diabetic nephropathy alone.<sup>5,6</sup>

(4) Could there be an associated renal vein thrombosis? Renal vein thrombosis is a rare occurrence in diabetic nephropathy, and case reports are scarce. However, the presence of renal tenderness with hematuria, when papillary necrosis or renal obstruction are excluded, should alert the clinician to the possibility of this rare, but potentially treatable thrombosis.

These two case reports illustrate the importance of seeking reversible causes of renal dysfunction in diabetics. The first patient had a 20-year history of IDDM, but did not have proteinuria on the initial urinalysis. Proteinuria and microscopic hematuria developed by the eighth hospital day, along with a generalized rash. She was on two potentially nephrotoxic drugs. Oxacillin can cause acute interstitial nephritis, and captopril may reduce renal blood flow and glomerular filtration rate. Both drugs were discontinued, but in this case, azotemia continued to worsen, leading to a consideration of the possibility of a coincident nephritis. It should be emphasized



**Figure 8.** Kidney glomerulus with diffuse and nodular glomerulosclerosis. Hematoxylin and eosin stain. 500x.



**Figure 9.** Kidney glomerulus shows dense silver staining of sclerotic glomerulus. Fibrin cap lesions (arrow) in glomerular capillaries are silver negative. Periodic acid, methenamine silver. 500x.



that the patient had had no recent throat infections; it is interesting to speculate about the association of *S aureus* cellulitis and the associated glomerulonephritis.

The second patient had a 32-year history of IDDM, but unlike the first patient, was known to have had proteinuria previously. Because of the patient's significant flank tenderness, obstructive uropathy was considered very likely; however, a retrograde study excluded it. The thrombocytopenia at admission is difficult to explain, as the hematologic evaluation for diffuse intravascular coagulopathy and microangiopathy were negative. Prompt and early anticoagulation offers a good chance of recovery in renal vein thrombosis, but in the reported case the four-week delay before anticoagulation reduced the opportunity for reversal of the renal failure.



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# Child Abuse: A Time for New Awareness

Gwen L. Gibson, MD; Robert W. Block, MD

There were 7602 cases of confirmed child abuse and neglect in Oklahoma in 1989. Twenty-five children died from abuse during the fiscal year. Physician training in diagnosis and management of child abuse must be expanded. Physicians are required by state statute to report all cases of suspected abuse to the Department of Human Services. Sexual abuse of children appears to be increasing. A coordinated multidisciplinary effort which involves physicians can help manage this threat to childrens' health.

**B**ased on the most recent national statistics, it is estimated that over 1.5 million children were abused in the United States in 1986.<sup>1</sup> This represents an appalling 74% increase since 1980. In the same time period, the incidence of child sexual abuse has tripled.

In Oklahoma, child abuse is also increasing relentlessly. There were 3733 confirmed cases in 1981 and 7602 in 1989. Only 33% of all cases reported to the Oklahoma Department of Human Services (DHS) are confirmed. Among confirmed reports, 42% were examples of environmental neglect, 23% were related to beatings, and 14% represented sexual abuse. During fiscal 1989 there were 37 child deaths investigated by DHS for alleged child abuse or neglect. Twenty-five of these deaths were confirmed as abuse.<sup>2</sup>

In 1988 the Governor of Oklahoma and the

leaders of the state House and Senate appointed a commission to study child abuse in the state. The report of the commission, *Protecting Oklahoma's Children: Who is Responsible*, was released in November 1989. In this report, heading a section addressing "System failure: Recurring abuse and child deaths," the following quote appears:

Physicians in Oklahoma have grown increasingly concerned about child abuse and neglect in the past several years. Lately, child deaths from abuse have increased, and we are dealing with an astounding number of sexual abuse referrals. Physicians see evidence first hand that the systems in Oklahoma designed to deal with child abuse are over-burdened and not working. Strengthening the system is imperative to reducing severe abuse and child deaths. Medical, legal, and social work professionals must make a commitment to work together.<sup>3</sup>

One of 27 issues discussed in the commission report was diagnosis, reporting, and testimony by medical professionals. Only 2.2% of suspected abuse cases in Oklahoma are reported by physicians, compared to 13% nationally. Research in this area led the commission to the following findings:

1. Many physicians lack the necessary training to work with suspected child abuse and neglect cases.
2. Professional liability and time lost to courts are deterrents against physicians working in the area of child abuse.
3. Reimbursement for the time required to evaluate and follow-up an abuse case is often not available

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- or difficult to obtain. Expert witness fee sources are unavailable or difficult to identify.
4. Because many rural hospitals and physicians lack the expertise to provide management for suspected abuse cases, many children are referred to Children's Hospital of Oklahoma, where resources are strained.<sup>3</sup>

In order to deal more effectively with child abuse issues, physician training in diagnosis and treatment must be expanded, and more physician abuse experts must be available for consultation to rural counties. Physician concerns regarding immunity, reimbursement, and time in court are reasonable, and solutions must be developed. However, the commission suggests that "physicians and nurses cannot allow (these concerns) to override their legal obligation to report suspected abuse, or their obligation as healers to intervene if a child's life and safety is in jeopardy."<sup>3</sup>

Legislation is currently being considered that would create a special designation for physicians who, after special training, would be child abuse examiners. These physicians would then provide consultation to colleagues, and would manage child abuse cases presenting in their locales.

The Oklahoma Statutes clearly define reporting responsibilities for physicians. As stated in Title 21, O.S. §846, "Every physician or surgeon, . . . attending or treating a child under the age of eighteen years . . . having reason to believe that a child under the age of 18 years has had physical injury or injuries inflicted upon him or her by other than accidental means where the injury appears to have been caused as a result of physical abuse or neglect, shall report the matter promptly to the county office of the DHS in the county wherein the suspected injury occurred. . . . *Provided it shall be a misdemeanor for any person to knowingly and willfully fail to promptly report any incident as provided above.*"

It is very important to note the next statute, §847, which states, "Any person participating in good faith and exercising due care in the making of a report pursuant to (this act) . . . shall have immunity from any liability, civil or criminal. . . ."

One of the areas that creates frustration for physicians suspecting abuse or examining a child referred for possible abuse is the lack of coordinated follow-up with DHS and the court systems. In order to rectify this problem while simultaneously facilitating management of abuse cases, the creation

of multidisciplinary teams is being explored by the Child Abuse Study Commission and the legislature. Physicians, particularly those identified as child abuse examiners, would participate on these teams with DHS workers, law enforcement officials, district attorneys, and other professionals. Case management, including treatment for the child and prosecution of perpetrators when appropriate, could be greatly facilitated by this model.

As we enter a new decade and prepare for the 21st century, it is incumbent upon physicians to be aware of current trends in child abuse. As recently reported, more children are being identified as needing evaluation for possible abuse, more clinically subtle abuse is being recognized, and child sexual abuse is becoming the most frequent complaint in some states.<sup>4</sup>

Child sexual abuse is defined as the exploitation of a child or adolescent for the sexual gratification of another person. This definition implies a power discrepancy between adults and dependent, developmentally immature children or adolescents who are engaged in sexual activities they do not understand, and to which they are unable to give informed consent. Child sexual abuse encompasses a wide range of behaviors from fondling, exhibitionism, prostitution, and pornography to actual sexual intercourse. Abuse can be a one-time occurrence but more commonly is part of a relationship spanning months or years.

Exploitation of children is not a phenomenon unique to the twentieth century. However, child sexual abuse literature was almost nonexistent until the late 1970s.<sup>5</sup> Over the past two decades reports of child sexual abuse have increased to epidemic proportions. Estimates of the prevalence from the National Center on Child Abuse and Neglect indicate that 100,000 to 250,000 cases of child and adolescent sexual abuse are reported annually in the United States.<sup>6</sup> In Oklahoma, 14% to 28% of confirmed cases of abuse and neglect are sexual abuse.<sup>2</sup>

The emotional consequences of sexual abuse begin with feelings of betrayal which result from being abused by a person who usually was known and trusted, and often are followed by disbelief among people to whom the child discloses the abuse. The feeling of betrayal may undermine the sense of trust a child needs to develop intimate relationships. A victim can develop a sense of powerlessness as a result of feeling trapped or attacked. This can result in phobias, nightmares, somatic complaints, and



generally anxious behaviors that may lead the child and family to medical evaluation without disclosure of the underlying abuse.<sup>7</sup>

What is the key to solving the problem of child sexual abuse? Most feel prevention is the answer. This begins by acknowledging that sexual abuse does occur. Efforts to deal with the problem must begin at a local level. Physicians must learn to recognize physical signs of sexual abuse, and understand that these signs are often absent. Behavioral indicators might suggest abuse, so physicians also need training to recognize these signs.

Oklahoma has a solid medical foundation in the area of child abuse, beginning with the departments of pediatrics at the Oklahoma City and Tulsa campuses of the University of Oklahoma College of Medicine, and extending through graduates of the residency training programs into many areas of the state. Continuing medical education in the area of child abuse for all physicians who see children is the next priority. □

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## On Looking Young

William P. Truels, MD

**M**y Father always used to complain about how he looked so young. "Whenever I go looking for a job, people always tell me they're looking for someone older," he would complain.

Little did I realize that when I got older, the same problems would haunt me in the medical profession. While many of my colleagues suffered the ignominious fate of a receding hairline or even premature baldness, I was cursed with a full head of thick, black hair and oily skin that made me look about ten years younger.

At times, this worked to my advantage. One night as a chief resident, I was working late in the Emergency Room sewing up a laceration. About half way through the closure, my new intern, who was nowhere to be found, suddenly appeared. He was five years my junior, but with his premature baldness, he looked about ten years older.

"Dr Truels, may I finish closing the incision?" he asked.

As a courtesy to the patient, I was about to say no, since the closure was somewhat complicated and I was already half way through the procedure.

To my surprise, the patient, who had been dozing, suddenly spoke up.

"I would prefer, Dr Truels, if the intern finished closing the incision," the patient replied. "He looks to be more experienced."

As I prepared to leave, the intern whispered,

"What kind of suture should I use to close the skin, Dr Truels?"

I whispered back, "Just use your experience."

With great fanfare, I turned the case over to my intern and went to sleep for the rest of the night.

At other times, though, looking young can be a distinct disadvantage, especially if you're a surgeon describing to a nervous patient the need for an operation.

More than once, I have heard patients whisper as I leave the room, "How old is that doctor?"

Accordingly, during the course of discussing surgery with a patient, I always try to work some reference to my age into the conversation. One time, I had a middle-aged patient from Brooklyn who seemed uneasy about my fixing his hernia.

I casually looked at the chart and said, "I see you're from Brooklyn. Sure was a shame when the Dodgers had to leave town," I complained. Needless to say, I fixed his hernia the same week.

My stepfather was a World War II veteran and has told me countless stories about his experiences in the South Pacific. One time I had an older patient who was apprehensive about having his gallbladder removed, and I asked him if he was a veteran.

"I sure am a veteran, Doctor," he replied. "I spent four years in the South Pacific and fought in the battle of Okinawa."

"Those kamikazes were lethal," I replied matter-of-factly.

"We knocked three of them down with our six-inch guns," he replied, visibly more at ease. The next day,

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I removed his markedly inflamed gallbladder.

Another tactic for younger surgeons is to refer to their vast experience. One week, I had removed three gallbladders and was seeing a patient that Friday morning.

"How many of these gallbladders have you removed, Doctor?" the patient asked skeptically, looking at the acne on my face.

"You're the fourth one this week," I replied matter-of-factly. I did his surgery the following Monday.

Lately, my full head of hair has developed some silver streaks, which I initially interpreted as a sign of relief. No longer would I have to convince people of my vast surgical experience or expertise. But, alas, even this development has not solved all my problems.

One day I was getting ready to schedule my patient for a hernia repair when I detected some apprehension on his part.

"Is there a problem?" I asked.

"Yes, Doctor," he replied. "How long have you been in practice?"

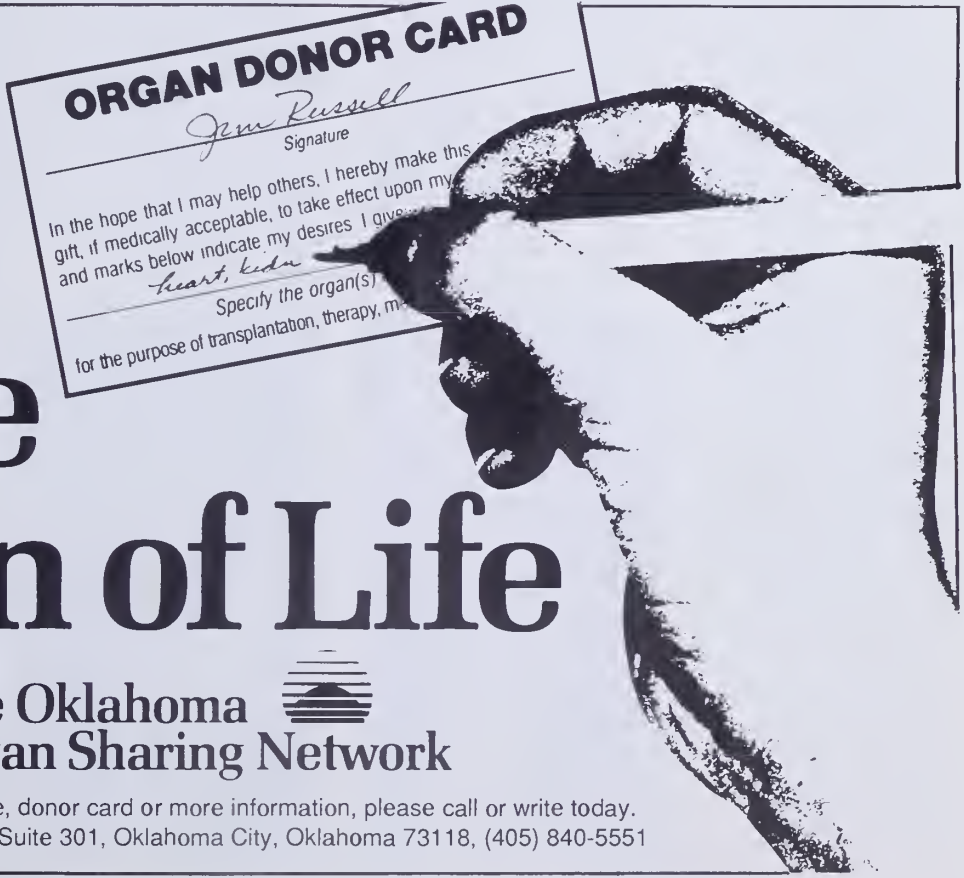
"Sixteen years," I confidently responded.

"You probably graduated before they started using lasers," he replied. "I saw an advertisement on TV from University Hospital. It seems the young surgeons there are using lasers to do hernias," he added. "Looks to me like lasers are the wave of the future, what with Star Wars and all."

"I've taken two postgraduate courses in laser surgery," I responded defensively. "Lasers have proven themselves in hemorrhoid surgery, but haven't yet been practical for hernias. In addition, there's a \$300 charge for using the laser," I added.

My patient agreed to his outpatient hernia surgery, but I began to wonder if there was ever an ideal age for surgeons. It all came down to one of those good news/bad news stories. The good news was that I no longer looked too young — the bad news was that I was beginning to look too old!

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William P. Truels, MD, is an Oklahoma City surgeon and assistant editor of the Oklahoma County Medical Society's *Bulletin*



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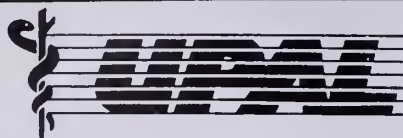
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Day, James S., M.D.	Heaver, Holly, M.D.	Miller, G. Lance, M.D.	Stratton, H.L., M.D.
Dennehy, Timothy H., M.D.	Hendricks, James W., M.D.	Miller, J. Steve, M.D.	Swafford, Melvin R., M.D.
Dilger, J. Thomas, Jr., M.D.	Hendrix, Paul G., M.D.	Mims, Leroy, M.D.	Tate, Emmett, M.D.
Dillman, Robert E., M.D.	Hoffman, Kenneth C., M.D.	Minielly, John A., M.D.	Tatum, Harvey A., M.D.
Dixon, Richard E., M.D.	Holland, William T., M.D.	Minor, David B., M.D.	Tenney, Richard F., M.D.
Dolan, C. Terrence, M.D.	Horowitz, Leon, M.D.	Minor, Dwane B., M.D.	Venugopal, Annie, M.D.
Doran, C.K., M.D.	Hudson, Robert J., M.D.	Mowry, John D., M.D.	Vonhartitzsch, Barry, M.D.
Drabek, Greg, M.D.	Hunter, Gerard J., M.D.	Murphy, Arthur J., M.D.	Vosburgh, John M.D.
Dunaway, Don, D.O.	Hurewitz, David S., M.D.	Murphy, Linda, M.D.	Ward, John W., M.D.
Durick, William, J., M.D.	Hutton, James P., M.D.	Myers, Rodney L., M.D.	Watt, Richard H., M.D.
Easley, James, M.D.	Jacobs, Lawrence, M.D.	Nash, Charles H., M.D.	Weiss, Mark J., M.D.
Edwards, David L., Jr., M.D.	Jenkins, David W., M.D.	Neal, R. Wayne, M.D.	Wenger, Bruce E., M.D.
Edwards, Jeanne, M.D.	Jennings, John, M.D.	Nelson, Franklin S., M.D.	West, Randal M.D.
Eisen, Barry, M.D.	Johnson, Gail I., M.D.	Nesbome, Susan L., M.D.	Wetzel, Fred, M.D.
Emanuel, David L., M.D.	Johnson, James A., M.D.	Niebergall, Robert, M.D.	Whitlock, Boyd O., M.D.
Exon, Walter, M.D.	Jones, Dwayne D., M.D.	Olson, Darwin D., M.D.	Wilkerson, Mike, M.D.
Farmer, Charles A., M.D.	Josephson, John F., M.D.	Pagel, Warren, M.D.	Wiemar, Kenneth, M.D.
Feen, Alan E., M.D.	Karasek, Dennis, M.D.	Palik, Emil, M.D.	Yearly, Edwin C., M.D.
Ferris, Samuel, M.D.	Katz, Stewart, M.D.	Palmer, James O., M.D.	Young, Timothy R., M.D.
Fielding, Allan S., M.D.	King, Gregory	Perryman, Philip W., Jr., M.D.	Zanetakis, Ellen I., M.D.
Fitter, William F., M.D.	Knox, C. Frank, M.D.	Planstiel, Carl E. Jr., M.D.	Zanovich, Terry L., M.D.
			Zekauskas, Raymond A., M.D.
			Zoller, Robert P., M.D.

*37 Life Members approved*

## Board names winners of Robins, Blair awards at winter meeting

Winners of the A.H. Robins and Donald J. Blair Friend of Medicine awards were selected by the OSMA Board of Trustees at their February 18 meeting in Oklahoma City.

Virgil Dale Matthews, MD, Muskogee, will receive the Robins award, given for outstanding community service by a physician. The Blair award will go to Oklahoma City community leader Lee Allan Smith. Awards are to be presented at the OSMA Annual Meeting next month.

Bud Wright, AMA medical society relations director, was a special guest at the meeting. He reported on events surrounding the recent resignation of AMA Executive Vice President James Sammons. Also appearing was Fred Bush, director of Aetna Medicare, who discussed new Medicare regulations and "Dear Doctor" letters.

In an update on the VIP program, OSMA Special Projects Director Claudia Kamas reported that work is underway to compile a list of all VIP sign-up sites in Oklahoma. The list is for use by the OSMA staff in referring callers.

The Council on Medical Services submitted its proposed policy for the review of member physicians with hospital staff privileges or credentialing disputes. The policy was approved.

A proposal to adopt the AMA Investment and Retirement Program for OSMA physicians, tabled at the November board meeting, was tabled again and is to be considered at the board's next meeting in May.

OSMA Executive Director David Bickham reported that the controversial Blue Cross "hold harmless" clause had been deleted in its entirety from the Prudent Purchaser Option Physician Agreement. The change became effective January 1, 1990, via an endorsement issued by the company.

In a discussion of PLICO Health claims, it was noted that there are four levels of reimbursement in the payment schedule, which is based on zip codes; the difference in levels was said to be minimal. The board approved a motion requesting that the next PLICO report to the board explain why more than one level of reimbursement exists.

*(continued)*



Attending the February meeting of the OSMA Board of Trustees were (l to r) Fred Bush, Aetna Medicare director; Jim Williams, executive director of the Oklahoma Foundation for Peer Review (OFPR); and Bud Wright, AMA medical society relations director.

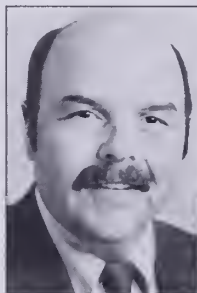


## OKC to host 84th Annual Meeting of OSMA House of Delegates

The Marriott Hotel in northwest Oklahoma City will play host this year to the 84th Annual Meeting of the Oklahoma State Medical Association (OSMA). The meeting runs May 3-5.

The OSMA Board of Trustees will convene on Thursday afternoon, May 3. That evening the University of Oklahoma College of Medicine Alumni Associ-

Scheduled to appear at the 84th Annual Meeting of the OSMA are AMA Trustee William F. Jacott, MD, and humorist Jeanne Robertson.



ation will host its annual dinner dance honoring OU's Physician of the Year and Amicus Medicinæ Award recipient.

Opening Session of the OSMA House of Delegates will begin at 9 AM Friday, May 4, with Reference Committee meetings immediately following.

Oklahoma physicians and their spouses are invited to attend Friday's annual luncheon sponsored

by the OSMA Auxiliary. This year's program features a style show from the Webb of Nichols Hills Plaza. All profits from the event will go to the AMA-ERF.

Friday afternoon will be highlighted by a special seminar on adolescent alcohol and drug abuse. The session will feature representatives from the State Department of Education, State Mental Health Department, Oklahoma Alliance Against Drugs, and OSMA. Volunteer physicians and spouses will receive educational materials and information to assist them in becoming knowledgeable leaders against adolescent substance abuse in their communities.

The entertainment Friday evening begins with a 6 PM reception honoring incoming OSMA President Perry A. Lambird, MD, and retiring president John R. Alexander, MD. The President's Banquet follows at 7 PM and features humorist Jeanne Robertson. Ms Robertson, a six-foot-two former Miss America contestant from North Carolina, entertained at the OSMA's 1983 Annual Meeting in Tulsa.

The Closing Session of the House of Delegates, featuring a special address by AMA Trustee W.E. Jacott, MD, will begin at 9 AM Saturday, May 5. It will be followed that afternoon by a PLICO Loss Prevention Seminar, sponsored by the Oklahoma Surgical Association. □

## Board Meeting (continued)

In other business, OSMA President John R. Alexander, MD, announced the formation of a new OSMA/OUHSC liaison committee which will consider several issues: the decreasing medical student applicant pool, the decreasing number of graduates going into primary care specialties, and the improvement of state funding for medical schools.

Treasurer James Funnell, MD, reported that the OSMA audit by BDO Seidman was complete and the PLICO audit was still in progress. The two reports will be ready for the May board meeting.

The board approved Life Memberships for the following applicants:

From Oklahoma City: Gerald W. Boles, MD; Earl M. Bricker, Jr., MD; Charles M. Harvey, MD; Thomas H. Henley, MD; James R. Lowell, MD; M. Wilson Mahone, MD; William A. Morrison, MD; Ira O. Pollock, MD.

From Tulsa: Irvin B. Braverman, MD; William F. Ewing, MD; Homer D. Hardy, Jr., MD; John C. Lee, MD; Robert A. Nelson, MD; William J. O'Meilia, MD; Joseph Salamy, MD; David I. Schrum, MD; William B. Scimeca, MD.

From Lawton: John T. Hicks, MD; Sam C. Jack, MD.

From Sapulpa: Thomas D. Burnett, MD; Walter Cale, MD; Robert G. White, MD.

From elsewhere in the state: Howard A. Bennett, MD, Bartlesville; Arthur M. Brown, Jr., MD, Perry; Wilson J. Buvinger, MD, Enid; Francis A. Davis, MD, Shawnee; William O. Ellifrit, MD, Ponca City; Jack P. Enos, MD, Yukon; Jack D. Fetzer, MD, Woodward.

Others were: A.W. Haddox, MD, Antlers; Julius Lacroix, Jr., MD, Hugo; W. George Long, MD, Purcell; Virgil D. Matthews, MD, Muskogee; John R. Pollock, MD, Ardmore; Laurence O. Short, MD, Cyril; J. Harold Tisdal, MD, Clinton; Claude H. Williams, MD, Okeene. □



# 84th Annual Meeting Oklahoma State Medical Association May 3-5, 1990

**Marriott Hotel, Oklahoma City**

## **Thursday, May 3**

- 11 AM ..... OSMA/OSMAA Registration
- 11 AM ..... OSMAA Hospitality & Silent Auction
- 11:30-1:30 PM ..... OSMAA Board Meeting and Luncheon
- Noon-1:30 PM ..... OSMA Executive Committee
- 1:30-4 PM ..... OSMA Board of Trustees Meeting
- 1:30-5:30 PM ..... OSMAA Tour of Oklahoma City
- 6:30 PM ..... OU College of Medicine Reception, Dinner and  
Dance (tickets may be ordered by calling the  
college at (405) 271-2353)

## **Friday, May 4**

- 7:30 AM ..... OSMA/OSMAA Registration
- 7:30 AM ..... OSMAA Hospitality & Silent Auction  
Continental Breakfast
- 7:30-9 AM ..... OSMAA Past Presidents Breakfast
- 7:30-9 AM ..... OSMAA County Presidents & Presidents-Elect Breakfast
- 9 AM ..... OSMA House of Delegates Opening Session
- 9 AM-Noon ..... OSMAA House of Delegates
- 10:30 AM ..... OSMA Reference Committees
- Noon ..... OSMA-OSMAA Luncheon/Fashion Show
- 1 PM ..... Adolescent Alcohol and Drug Abuse Seminar
- 1-4 PM ..... Oklahoma Surgical Association Scientific Session
- 3:30-5 PM ..... OSMA Candidate Forum
- 6-7 PM ..... OSMA President's Reception
- 7 PM ..... OSMA President's Banquet  
Guest Speaker: Jeanne Robertson

## **Saturday, May 5**

- 7:30 AM ..... OSMA/OSMAA Registration
- 7:30 AM ..... OSMAA Hospitality
- 7:30-9 AM ..... OSMA Past Presidents Breakfast
- 7:30-9 AM ..... OSMA Hospital Medical Staffs Section Breakfast
- 9 AM ..... OSMAA Post-Convention Board Meeting
- 9 AM ..... OSMA House of Delegates Closing Session
- 9 AM-1 PM ..... Oklahoma State Urological Association
- 9:30 AM-3 PM ..... Oklahoma Chapter of American College of  
Emergency Physicians: "Risk Management in  
Emergency Medicine"
- 11:30 AM-1 PM ..... Oklahoma Surgical Association Business Luncheon
- 1:30 PM ..... PLICO Loss Prevention Seminar sponsored by  
the Oklahoma Surgical Association

Schedule subject to change prior to publication of official program.

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## Grant to provide Healthy Futures for state's perinatal infants



Data collected in the late eighties indicate that nearly one-third of the expectant mothers in the state receive neither early nor adequate prenatal care. Even where adequate maternal and infant services exist,

many babies and expectant mothers do not receive this care because of a lack of money to pay for the

care, a lack of transportation to such care, the unavailability of affordable child care, or the lack of appreciation for the need of such services.

In 1988, as a result of this problem and coinciding with the Governor's Conference on Families, Children and Youth, Oklahoma was announced as one of six states to receive a special grant from the Robert Woods Johnson (RWJ) Foundation. Part of the RWJ

## Earth Day Every Day

by George H. Hulsey, MD

Take time and smell the roses!

Hardly the advice of an allergist to a wheezing patient, but a simple prescription for harried physicians mired in the medical bureaucracy and particularly appropriate as our nation celebrates Earth Day this month.

As a long-time environmentalist, physician, and current chairman of the National Wildlife Federation, I believe the time has arrived for physicians to become aware of environmental issues and incorporate these concerns into our practices for the good of our patients.

You all know the issues — the depletion of the ozone layer, polluted air and water, acid rain, the wanton destruction of forests and wetlands. All of these issues have a direct impact on the health of our patients. These environmental problems lead to respiratory distress, injury to our immune system, and increases in skin cancers, cataracts, and related eye problems.

As physicians we can be role models for our patients, especially the young, when we advise them to use sun screens and explain why our Earth receives more and more ultraviolet light, or tell them not to exercise in polluted air and describe what we all can do to make it pure again.

Because of our scientific training and our place in our communities, we as physicians are in a natural position to become leaders in detailing the deleterious health effects of ignoring the environment.

I am pleased to report that this year the OSMA established a Committee on Physicians and the Environment to deal with these issues.

Oklahoma physicians interested in this area should contact committee chair Chet Bynum, MD.

In addition to better serving our patients and working to preserve our planet, there is another very important reason I encourage my colleagues to become interested in the environment. That reason is *you!*

These are not easy times for physicians. We are regulated and reviewed to a greater degree than any other profession. As our stress level rises as we deal with the bureaucrats and others who would like to tell us how to practice medicine, the environment can become our first defense against burnout.

All too often an environmentalist is stereotyped as a sign-carrying zealot with a cause. This may be true for some but for most, an environmentalist is simply someone who loves and enjoys nature.

When your head begins to spin with "Dear Doctor" letters from Medicare or information about some new managed care plan, you will be amazed at how your perspective and disposition improve when you discover the healing effect of a rod, reel, and cold mountain stream; a brisk walk under a blue country sky; or time alone or with family simply enjoying the solitude, quiet, and beauty of nature.

As we celebrate Earth Day, I hope all Oklahoma doctors will take this prescription: Sometime this year put a sign on your office door that says "Gone Fishin'!"

I promise you it's good medicine. ¶

*[Dr Hulsey is a family physician in Norman.]*



## Healthy Futures (continued)

program "Healthy Futures: A Program to Improve Maternal and Infant Care in the South," Oklahoma received \$609,000 for a two-year period, renewable for an additional two years.

This important grant is providing Oklahoma with the unique opportunity to put together an array of programs, projects, and public awareness campaigns to reduce infant mortality, low birthweight babies, delivery complications, and infant deaths.

The grant uses a three-step approach. It was felt that to make significant changes in the health care system for expecting mothers and perinatal infants, a state policy that facilitates access to care is needed; funding must improve preconceptional perinatal and infant care services; and comprehensive community systems coordination is necessary as well.

The program was begun in 1988, and coordinators have visited all counties in the state and have acquainted themselves with most perinatal care providers, key community leaders, and other individuals and agencies involved in the perinatal care system.

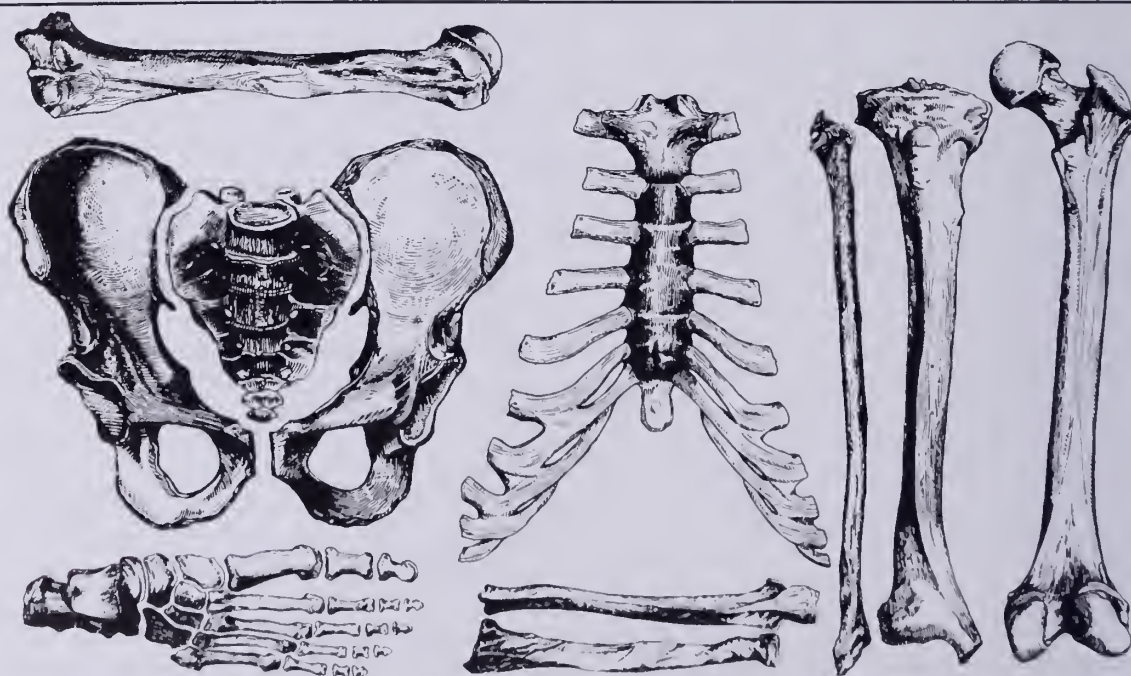
From its conception, Healthy Futures has had the cooperation and involvement of the private sector of medicine. The program receives its guidance from a steering committee made up of a partnership of professionals from a number of different fields. Much of the success that this program has enjoyed so far must be attributed to the participation of the private physicians in this group.

Additionally, the participation of several legislators in this project cannot be overemphasized. Without their substantial support the program could not have become a reality.

With the support of these groups and the governor's office, the Healthy Futures program, which is headquartered in the Oklahoma State Department of Health (OSDH), will continue to work toward an improvement in the health status of mothers and infants and provide healthier futures for all Oklahomans as well as the more cost-effective delivery of health services statewide.

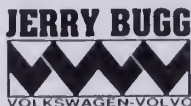
For information, call Healthy Futures, Joy Leuthard, (405) 271-4476.

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## ***Center educates care providers for state's geriatric population***

A new organization, the Oklahoma Geriatric Education Center (OkGEC), is now offering interdisciplinary geriatric education for the faculties of health professional schools and health care providers across the state.

Established in October, the center is located in the O'Donoghue Rehabilitation Institute on the University of Oklahoma Health Sciences Center (OUHSC) campus in Oklahoma City; a regional training center is located on OUHSC's Tulsa campus.

Director James W. Mold, MD, assistant professor of family medicine at OUHSC, emphasized that the center will provide technical assistance and consultation for development of geriatric education programs to the faculty of any school which offers training in any of OkGEC's 17 health care disciplines: biomedical and health care ethics, communication disorders, dentistry, dietetics, education, gerontology, health care administration, medicine (allopathic and osteopathic), nursing, occupational therapy, optometry, pharmacy, physical therapy, physician associate, psychology, public health, and social work.

OkGEC is a consortium of five academic institutions: Langston University, Northeastern State University, Oklahoma City Community College, Oklahoma State University (both main campus and the College of Osteopathic Medicine), and the University of Oklahoma (main campus, Health Sciences Center, Oklahoma City, and College of Medicine, Tulsa). The group's funding was provided by a grant to OUHSC from the US Department of Health and Human Services, Public Health Services, Health Resources and Services Administration.

For additional information, contact Oklahoma Geriatric Education Center, 1122 Northeast 13th Street, Room 4201, Oklahoma City, OK 73117-1039, (405) 271-8558. The Tulsa office is located at 2808 South Sheridan Road, Tulsa, OK 74129-1077, (918) 838-4724.

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## PLICO appreciated by reader and envied by out-of-state doctors

*To the Editor:* I certainly agree with the views expressed by our president, J. R. Alexander, in his editorial ["Unrivaled Value," Feb 90] about our physicians liability insurance. In the last 6 months, on two occasions, I have had the opportunity to be a keynote speaker to the boards of physician-owned liability companies, one a state in the midwest and one on the east coast. Afterwards, I listened to these physicians discuss their problems during their business meetings. I reflected on how fortunate we were in Oklahoma by comparison. Indeed, our insurance is of "unrivaled value." Physician board members in both states expressed the wish they could offer their colleagues something comparable to "what you have in Oklahoma."

—Gordon H. Deckert, MD  
Oklahoma City

## Neurologist addresses issue of specialty boards and certification

*To the Editor:* I read your editorial in the state medical journal ["On Cranberry Juice," Feb 90]. You need to realize that there are many boards. There are in fact legitimate boards that have been incorporated for many years and do not give away certification.

I would particularly bring your attention to the Neurophysiology Boards given by two EEG societies — American EEG Society and American Medical EEG Association. These have been in existence for approximately twenty years.

Many candidates flunk their examinations and in fact the fail rate is often as high as 50%. Being a Senior Examiner on the Boards for AMEEGA, I can assure you that these are not "Mickey Mouse" boards.

The problem that you really have not addressed, even slightly, is what to do with the large areas of knowledge from which no testing is done by any ABMS certified board. As new fields of knowledge develop, how are these tested? If you do not develop an ad hoc board to examine physicians, you will never develop a full-blown specialty in same. Hence, what you have done is open the field for quacks to use.

It has been the policy of ABMS to systematically exclude these boards and not recognize them, which has been unfortunate. Since people who are boarded

by legitimate subspecialties are excluded, there is no question that this is clearly in restraint of trade in an effort by the ABMS to restrict in a very discriminatory fashion the recognition of training.

Basically, the issue is the following: (1) Does a body of knowledge exist which is independent from that already being tested by an ABMS Board? (2) If this body of knowledge exists, then are physicians being trained in this area? (3) If physicians are being trained in this area which is not covered by ABMS Boards, should they not be certified by an independent board?

(continued)

## IN MEMORIAM

### 1989

John Hoyle Carlock, Jr., MD	January 19
Michael Bailey McCarty, MD	January 22
Alexander Shadid, MD	February 2
Moorman Paul Prosser, MD	February 12
Robert Vern Weger, MD	February 18
William Lawrence Bond, MD	March 26
Mary Edna Sippel, MD	April 10
Ruben Hilton Mayberry, MD	April 20
Norman Eugene Dearnbarger, MD	May 6
Gordon Kent Jimerson, MD	May 6
Orville McClure Woodson, MD	May 11
Robert Sears Davis, Jr., MD	May 13
James Richard Riggall, MD	May 30
Howard Choice Martin, MD	July 23
D. Evelyn Miller, MD	July 30
Nevin Wilson Dodd, MD	July 31
Alwyn Travers Kornblee, MD	August 7
Edward Keats Norfleet, MD	August 13
Wayman Jackson Thompson, MD	September 20
Rheba L. Huff Edwards, MD	September 30
George Harry Garrison, MD	October 5
Monroe Ruework Jennings, MD	October 27
Edmund Gordon Ferguson, MD	November 17
Don Lee Dycus, MD	December 6
Sylvester Robert Shaver, MD	December 16
Charles Edwards Leonard, MD	December 27

### 1990

John Justice Batchelor, MD	January 8
Fred W. Sellers, MD	January 11
Dewey Lee Mathews, MD	January 18
Powell Everett Fry, MD	January 28
Alpha Louis Johnson, MD	February 3
Marshall W. Oppen, MD	February 12

I believe that the new rules as promulgated will generate nothing but lawsuits. I certainly expect to take part in one if I am not allowed to use my board credentialing.

Notice at the top of my stationery that I have *never* used Boards after my name because I do not believe it is important! However, since now it is going to be an issue, I intend to do so.

—Ernest G. Warner, Jr., MD  
Oklahoma City

## DEATHS

### Powell Everett Fry, MD 1910 - 1990

Retired Stillwater physician Powell E. Fry, MD, died January 28, 1990. Dr Fry was a native of Frederick and graduated from the University of Oklahoma School of Medicine in 1934. He established his general practice in Stillwater in 1935. During World War II, he served for almost four years as a flight surgeon in the Army Air Corps. Dr Fry was a past president of both the OU Medical School Alumni Association and the Payne County Medical Association. A Life Member of the OSMA, he retired in 1978.

### Alpha Louis Johnson, MD 1902 - 1990

OSMA Life Member Alpha L. Johnson, MD, El Reno, died February 19, 1990, at his home. Born in Elyris, Kan, Dr Johnson was graduated from the OU School of Medicine in 1924 and established his general practice in El Reno 1926. He served for one year as OSMA vice president and was on the OSMA Board of Trustees for nine years. In 1973 he received the A.H. Robins Community Service Award. Dr Johnson retired in 1987.

### Marshall W. Opper, MD 1919 - 1990

Marshall W. Opper, MD, a family practitioner in Oklahoma City, died February 12, 1990. Dr Opper was born in Chicago and attended the University of Oklahoma School of Medicine, where he was graduated in 1944. He was a captain in the US Army from 1946 to 1948 and began his private practice in Oklahoma City in 1950.

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Classified ads are \$25 each up to 50 words, plus 50 cents for each additional word. A word is one or more characters bounded by spaces. Box numbers will be assigned upon request and add 6 words to the total. Ads will not be accepted on the telephone.

All ads must be prepaid. Mail ad with payment to: OSMA Journal, 601 Northwest Expressway, Oklahoma City, OK 73118. Ads must be in the Journal office by the first of the month preceding the month of publication.

### Physicians Wanted

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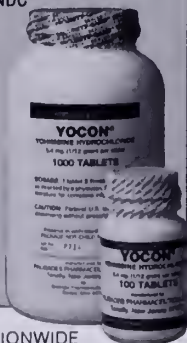
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#### References:

1. A. Morales et al., New England Journal of Medicine: 1221, November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27:2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128: 45-47, 1982.

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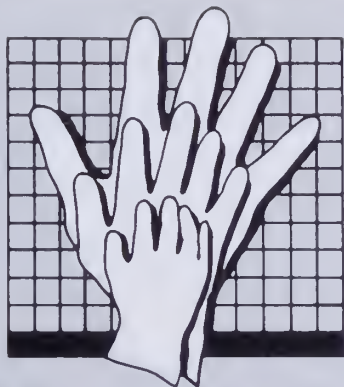


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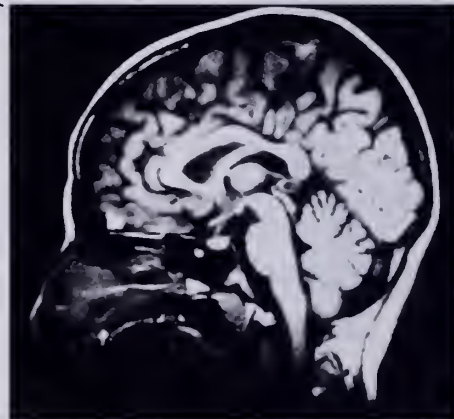
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## INSTRUCTIONS FOR AUTHORS

### Contributions

Articles submitted for publication, including Annual Meeting papers, become the sole property of the JOURNAL and must not have been published elsewhere. The Editorial Board reserves the right to edit any material submitted. Manuscripts must be typewritten, double-spaced, and submitted in duplicate. Receipt of manuscripts will be acknowledged, and unpublished manuscripts will be returned. The JOURNAL does not assume responsibility for the statements or opinions of any contributor.

### Style

All manuscripts should adhere to the style adopted by the American Medical Association as illustrated in *JAMA* and detailed in the AMA's *Manual of Style*. An abstract of 150 words or less should accompany each paper and should state (1) the exact question considered, (2) the key points of methodology and success of execution, (3) the key findings, and (4) the conclusion(s) directly supported by these findings. Footnotes, bibliographies, and legends for illustrations should be typewritten, double-spaced, on separate sheets. References are to be listed in the order of their appearance in the article.

### Illustrations

Illustrations other than the author's will not be accepted for publication unless accompanied by written permission from the original source. Illustrations should be labeled with the author's name and must be numbered in the order in which they are referred to in the article. The quality of all illustrations must be in keeping with the quality of the magazine.

### Reprints

Authors will receive reprint order forms from the Transcript Press, 222 East Eufaula, Norman, Oklahoma 73069, prior to publication of their articles. Other requests for reprints must be made to the Transcript Press within 30 days after publication.

### News

Readers are encouraged to submit news items of interest to Oklahoma physicians. Where dates of meetings, etc., are important, please remember that each issue closes on the first day of the *preceding* month and reaches subscribers in the latter half of the month of publication.

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## **State Convention 1990**

Oklahoma City will be the site of the annual meeting of the Oklahoma State Medical Association Auxiliary, as it meets concurrently with the OSMA. The meeting will be held May 3-5 at the Marriott Hotel, 3233 Northwest Expressway.

Following the pre-convention board meeting on Thursday will be a tour, "Oklahoma City — Old and New," open to all auxiliarians and their spouses. Led by Carol Jordan of Territorial Tours, the bus will depart from the hotel at 1:30 PM and return at 5:30. The tour, which traces the story of our great city from its spirited beginnings, will start downtown, where we will see Battle Row, Church Row, Automobile Alley, Bricktown, and the Crystal Bridge. From there we will travel through historic Heritage Hills and enjoy a guided tour of the Overholser Mansion, the first grandiose home in OKC. We will drive through the Medical Complex to see how much it has changed from the last time we were there, and make a quick stop at the capitol to view the Charles Banks Wilson murals in the rotunda. We will get more than a bird's eye view of Remington Park, our new \$92 million thoroughbred horseracing track. Our last stop will be at the National Cowboy Hall of Fame and Western Heritage Center, where a docent will be our guide as we view the art of Frederic Remington, Charles Russell, and James Earle Fraser. The afternoon promises to be both educational and entertaining to all, even the most knowledgeable history buff. Thursday evening the University of Oklahoma College of Medicine will host its annual alumni banquet at the hotel.

On Friday morning, there will be two special breakfasts, one honoring past state presidents and

one honoring county presidents and presidents-elect, followed by a breakfast buffet for the general membership. Our House of Delegates will convene at 9:30, when opening speeches will be given by visiting AMA and SMA Auxiliary officers. Election and installation of state officers will be held, as well as the appointment of the new nominating committee. Other business will include the budget presentation, a vote on by-laws changes, and annual reports from county auxiliaries and regional directors. We will remember the lives of our deceased auxiliarians with a memorial service before the meeting is adjourned.

Spouses are invited to join us for lunch and a style show following the business meetings of Friday morning. The Webb of Nichols Hills Plaza will provide the fashions for this luncheon, which will benefit the AMA-ERF. The Oklahoma Beef Commission will underwrite this luncheon so that even more profits may be given to this most worthwhile foundation.

Friday afternoon is free for shopping, sports, or just relaxing. The OSMA President's Reception and Banquet will be held Friday evening. It will honor Perry A. Lambird, MD, the new OSMA president.

Our post-convention board meeting will be held on Saturday morning. The alumni department of the OU College of Medicine will complete the week-end activities with a reception and barbeque at the OUHSC.

Make plans now to participate in Convention '90, and send in your reservations as soon as possible. It promises to be a worthwhile and enjoyable meeting.

Looking forward to hearing from you.

—Susan Wendelken  
OSMAA Convention Chair



■ **Malcolm G. Robinson, MD, Oklahoma City,** has been elected a 1990 governor for the American College of Gastroenterology. A graduate of the University of Oklahoma College of Medicine, Dr Robinson's subspecialty is adolescent medicine.

■ **A course on the practical management of** fluid and electrolyte problems will be presented Saturday, May 5, 1990, at the Waterford Hotel in Oklahoma City. Using a case-centered workshop approach, the program from the Department of Medicine, University of Oklahoma Health Sciences Center, will focus on sodium and potassium; syndromes will be included with low, normal, and high volumes of water. For information, call (405) 270-5149.

■ **The Oklahoma State Department of Health (OSDH)** has produced two new posters promoting the prevention of AIDS and other sexually transmitted diseases. The first, with the headline "Date But Wait" and a contemporary spot-color design, encourages adolescents to postpone sexual relationships. The second poster, headed "Shhhh!," is directed to the Native American community and warns that silence can spread AIDS faster than sex, IV drugs, or alcohol abuse. The design is distinctly Southwestern. Both posters display the Oklahoma AIDS Information phone number. They are available through the OSDH Office of Films and Publications, (405) 271-5188.

■ **The Department of Continuing Medical Education, University of Oklahoma College of Medicine,** has scheduled two courses in the next eight weeks. The Annual Ob/Gyn Spring Symposium will be held Wednesday through Friday, May 16-18, at the Marriott Hotel in Oklahoma City. The course is designed to accommodate the continuing education needs of the practicing obstetrician, gynecologist, family practitioner, endocrinologist, and resident in training. It will provide management plans for assessing a wide variety of clinical ob/gyn problems.

Saturday, June 2, is the date of the Fourteenth Annual Alumni and Residents Meeting (Ophthalmology). The program will update practicing clinicians on new developments in the field and provide an overview of current clinical ophthalmic research. The meeting will be held at the Waterford Hotel in Oklahoma City.

■ **An article in the February issue of "Epidemiology Bulletin,"** a publication of the Oklahoma State Department of Health, discusses infections in the elderly. The author, Clifford G. Wlodaver, MD, an infectious disease specialist in Oklahoma City, says the elderly are predisposed to more infections and poorer prognoses than younger individuals. Multiple conditions and treatments complicate the problem. Presentation in the elderly patient may be atypical, Dr Wlodaver notes. Febrile response to infection might be blunted, for example. Physicians also should watch for decreased renal clearance, which may increase the toxicity of some antibiotics, the potential drug interactions in patients on multiple medications, and the potential for resistant organisms.

■ **Tulsa and Oklahoma City account for only** 18% of the hospital beds in the state but provide over 60% of the hospital care services, according to a recent health policy brief from the Center for Health Policy Research, Oklahoma Medical Research Foundation. The brief, second in a series entitled "1988 Fiscal Health of Oklahoma Hospitals," summarizes statistics from the nation's 100 largest cities. "Both communities offer relatively efficient use of resources by having higher occupancy rates and lower rates of personnel staffing at lower-than-median hospital admission costs," says the report. However, "care should be taken in placing an over-emphasis upon gross cost differentials between regions." For example, the report says, "New England has high unadjusted costs but was the most 'affordable' when expressed as a percent of per capita income; and also has lower percentage of citizens without insurance."

■ **The Hospital Medical Staff Section of the** American Medical Association will hold its Fifteenth Assembly Meeting June 21-25, 1990. Medical Staffs from across the country are encouraged to elect a medical staff representative to participate in the AMA-HMSS meeting at the Chicago Marriott Hotel in Chicago. The HMSS Assembly provides medical staffs with a unique opportunity to discuss and participate in the policymaking process of the AMA. In addition to the Assembly Meeting, Stephen Shortell, PhD, of Northwestern University will present an informative program entitled "Building Effective Hospital Physician Relationships: Ten Success Stories." For further information about the AMA-HMSS, please call (312) 645-4754 or 645-4761.







# VASOTEC

(ENALAPRIL MALEATE) MSD

VASOTEC is available in 2.5-mg, 5-mg, 10-mg, and 20-mg tablet strengths.

**Contraindications:** VASOTEC (Enalapril Maleate, MSO) is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor.

**Warnings:** Angioedema. Angioedema of the face, extremities, lips, tongue, glottis, and/or larynx has been reported in patients treated with ACE inhibitors, including VASOTEC. In such cases, VASOTEC should be promptly discontinued and the patient carefully observed until the swelling disappears. In instances where swelling has been confined to the face and lips, the condition has generally resolved without treatment, although antihistamines have been useful in relieving symptoms. Angioedema associated with laryngeal edema may be fatal. **Where there is involvement of the tongue, glottis, or larynx likely to cause airway obstruction, appropriate therapy, e.g., subcutaneous epinephrine solution 1:1000 (0.3 mL to 0.5 mL), should be promptly administered.** (See ADVERSE REACTIONS.)

**Hypotension:** Excessive hypotension is rare in uncomplicated hypertensive patients treated with VASOTEC alone. Patients with heart failure given VASOTEC commonly have some reduction in blood pressure, especially with the first dose, but discontinuation of therapy for continuing symptomatic hypotension usually is not necessary when dosing instructions are followed; caution should be observed when initiating therapy. (See DOSAGE AND ADMINISTRATION.) Patients at risk for excessive hypotension, sometimes associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death, include those with the following conditions or characteristics: heart failure, hypotension, high-dose diuretic therapy, recent intensive diuresis or increase in diuretic dose, renal dialysis, or severe volume and/or salt depletion of any etiology. It may be advisable to eliminate the diuretic (except in patients with heart failure), reduce the diuretic dose, or increase salt intake cautiously before initiating therapy with VASOTEC in patients at risk for excessive hypotension who are able to tolerate such adjustments. (See PRECAUTIONS, Drug Interactions and ADVERSE REACTIONS.) In patients at risk for excessive hypotension, therapy should be started under very close medical supervision and such patients should be followed closely for the first two weeks of treatment and whenever the dose of enalapril and/or diuretic is increased. Similar considerations may apply to patients with ischemic heart disease or cardiovascular disease in whom an excessive fall in blood pressure could result in a myocardial infarction or cerebrovascular accident. If excessive hypotension occurs, the patient should be placed in the supine position and, if necessary, receive an intravenous infusion of normal saline. A transient hypotensive response is not a contraindication to further doses of VASOTEC, which usually can be given without difficulty once the blood pressure has stabilized. If symptomatic hypotension develops, a dose reduction or discontinuation of VASOTEC or concomitant diuretic may be necessary.

**Neutropenia/Agranulocytosis:** Another ACE inhibitor, captopril, has been shown to cause agranulocytosis and bone marrow depression, rarely in uncomplicated patients but more frequently in patients with renal impairment, especially if they also have a collagen vascular disease. Available data from clinical trials of enalapril are insufficient to show that enalapril does not cause agranulocytosis at similar rates. Foreign marketing experience has revealed several cases of neutropenia or agranulocytosis in which a causal relationship to enalapril cannot be excluded. Periodic monitoring of white blood cell counts in patients with collagen vascular disease and renal disease should be considered.

**Precautions: General Impaired Renal Function:** As a consequence of inhibiting the renin-angiotensin-aldosterone system, changes in renal function may be anticipated in susceptible individuals. In patients with severe heart failure whose renal function may depend on the activity of the renin-angiotensin-aldosterone system, treatment with ACE inhibitors, including VASOTEC, may be associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death.

In clinical studies in hypertensive patients with unilateral or bilateral renal artery stenosis, increases in blood urea nitrogen and serum creatinine were observed in 20% of patients. These increases were almost always reversible upon discontinuation of enalapril and/or diuretic therapy. In such patients, renal function should be monitored during the first few weeks of therapy.

Some patients with hypertension or heart failure with no apparent preexisting renal vascular disease have developed increases in blood urea and serum creatinine, usually minor and transient, especially when VASOTEC has been given concomitantly with a diuretic. This is more likely to occur in patients with preexisting renal impairment. Dose reduction and/or discontinuation of the diuretic and/or VASOTEC may be required.

**Evaluation of patients with hypertension or heart failure should always include assessment of renal function.** (See DOSAGE AND ADMINISTRATION.)

**Hyperkalemia:** Elevated serum potassium ( $>5.7$  mEq/L) was observed in approximately 1% of hypertensive patients in clinical trials. In most cases these were isolated values which resolved despite continued therapy. Hyperkalemia was a cause of discontinuation of therapy in 0.28% of hypertensive patients. In clinical trials in heart failure, hyperkalemia was observed in 3.8% of patients, but was not a cause for discontinuation.

Risk factors for the development of hyperkalemia include renal insufficiency, diabetes mellitus, and the concomitant use of potassium-sparing diuretics, potassium supplements, and/or potassium-containing salt substitutes, which should be used cautiously, if at all, with VASOTEC. (See Drug Interactions.)

**Surgery/Anesthesia:** In patients undergoing major surgery or during anesthesia with agents that produce hypotension, enalapril may block angiotensin II formation secondary to compensatory renin release. If hypotension occurs and is considered to be due to this mechanism, it can be corrected by volume expansion.

## Information for Patients

**Angioedema:** Angioedema, including laryngeal edema, may occur especially following the first dose of enalapril. Patients should be so advised and told to report immediately any signs or symptoms suggesting angioedema (swelling of face, extremities, eyes, lips, tongue, difficulty in swallowing or breathing) and to take no more drug until they have consulted with the prescribing physician.

**Hypotension:** Patients should be cautioned to report lightheadedness, especially during the first few days of therapy. If actual syncope occurs, the patients should be told to discontinue the drug until they have consulted with the prescribing physician.

All patients should be cautioned that excessive perspiration and dehydration may lead to an excessive fall in blood pressure because of reduction in fluid volume. Other causes of volume depletion such as vomiting or diarrhea may also lead to a fall in blood pressure; patients should be advised to consult with the physician.

**Hyperkalemia:** Patients should be told not to use salt substitutes containing potassium without consulting their physician.

**Neutropenia:** Patients should be told to report promptly any indication of infection (e.g., sore throat, fever) which may be a sign of neutropenia.

**NOTE:** As with many other drugs, certain advice to patients being treated with enalapril is warranted. This information is intended to aid in the safe and effective use of this medication. It is not a disclosure of all possible adverse or intended effects.

## Drug Interactions

**Hypotension: Patients on Diuretic Therapy:** Patients on diuretics and especially those in whom diuretic therapy was recently instituted may occasionally experience an excessive reduction of blood pressure after initiation of therapy with enalapril. The possibility of hypotensive effects with enalapril can be minimized by either discontinuing the diuretic or increasing the salt intake prior to initiation of treatment with enalapril. If it is necessary to continue the diuretic, provide close medical supervision after the initial dose for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and DOSAGE AND ADMINISTRATION.)

**Agents Causing Renin Release:** The antihypertensive effect of VASOTEC is augmented by antihypertensive agents that cause renin release (e.g., diuretics).

**Other Cardiovascular Agents:** VASOTEC has been used concomitantly with beta-adrenergic-blocking agents, methyl-dopa, nitrates, calcium-blocking agents, hydralazine, prazosin, and digoxin without evidence of clinically significant adverse interactions.

**Agents Increasing Serum Potassium:** VASOTEC attenuates potassium loss caused by thiazide-type diuretics. Potassium-sparing diuretics (e.g., spironolactone, triamterene, or amiloride), potassium supplements, or potassium-containing salt substitutes may lead to significant increases in serum potassium. Therefore, if concomitant use of these agents is indicated because of demonstrated hypokalemia, they should be used with caution and with frequent monitoring of serum potassium. Potassium-sparing agents should generally not be used in patients with heart failure receiving VASOTEC.

**Lithium:** Lithium toxicity has been reported in patients receiving lithium concomitantly with drugs which cause elimination of sodium, including ACE inhibitors. A few cases of lithium toxicity have been reported in patients receiving concomitant VASOTEC and lithium and were reversible upon discontinuation of both drugs. It is recommended that serum lithium levels be monitored frequently if enalapril is administered concomitantly with lithium.

**Pregnancy—Category C:** There was no fetotoxicity or teratogenicity in rats treated with up to 200 mg/kg/day of enalapril (333 times the maximum human dose). Fetotoxicity, expressed as a decrease in average fetal weight, occurred in rats given 1200 mg/kg/day of enalapril but did not occur when these animals were supplemented with saline. Enalapril was not teratogenic in rabbits. However, maternal and fetal toxicity occurred in some rabbits at doses of 1 mg/kg/day or more. Saline supplementation prevented the maternal and fetal toxicity seen at doses of 3 and 10 mg/kg/day, but not at 30 mg/kg/day (50 times the maximum human dose).

Radioactivity was found to cross the placenta following administration of labeled enalapril to pregnant hamsters. There are no adequate and well-controlled studies of enalapril in pregnant women. However, data are available that enalapril has not

been clearly defined. VASOTEC\* (Enalapril Maleate, MSO) should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Postmarketing experience with all ACE inhibitors thus far suggests the following with regard to pregnancy outcome: inadvertent exposure limited to the first trimester of pregnancy has not been reported to affect fetal outcome adversely. Fetal exposure during the second and third trimesters of pregnancy has been associated with fetal and neonatal morbidity and mortality.

When ACE inhibitors are used during the later stages of pregnancy, there have been reports of hypotension and decreased renal perfusion in the newborn. Oligohydramnios in the mother has also been reported, presumably representing decreased renal function in the fetus. Infants exposed in utero to ACE inhibitors should be closely observed for hypotension, oliguria, and hyperkalemia. If oliguria occurs, attention should be directed toward support of blood pressure and renal perfusion with the administration of fluids and pressors as appropriate. Problems associated with prematurity such as patent ductus arteriosus have occurred in association with maternal use of ACE inhibitors, but it is not clear whether they are related to ACE inhibition, maternal hypotension, or the underlying prematurity.

**Nursing Mothers:** Milk in lactating rats contains radioactivity following administration of  $^{14}$ C enalapril maleate. It is not known whether this drug is secreted in human milk. Because many drugs are secreted in human milk, caution should be exercised when VASOTEC is given to a nursing mother.

**Pediatric Use:** Safety and effectiveness in children have not been established.

**Adverse Reactions:** VASOTEC has been evaluated for safety in more than 10,000 patients, including over 1000 patients treated for one year or more. VASOTEC has been found to be generally well tolerated in controlled clinical trials involving 2987 patients.

**HYPERTENSION:** The most frequent clinical adverse experiences in controlled trials were: headache (5.2%), dizziness (4.3%), and fatigue (3%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in controlled clinical trials were: diarrhea (1.4%), nausea (1.4%), rash (1.4%), cough (1.3%), orthostatic effects (1.2%), and asthenia (1.1%).

**HEART FAILURE:** The most frequent clinical adverse experiences in both controlled and uncontrolled trials were: dizziness (7.9%), hypotension (6.7%), orthostatic effects (2.2%), syncope (2.2%), cough (2.2%), chest pain (2.1%), and diarrhea (2.1%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in both controlled and uncontrolled clinical trials were: fatigue (1.8%), headache (1.8%), abdominal pain (1.6%), asthenia (1.6%), orthostatic hypotension (1.6%), vertigo (1.6%), angina pectoris (1.5%), nausea (1.3%), vomiting (1.3%), bronchitis (1.3%), dyspnea (1.3%), urinary tract infection (1.3%), rash (1.3%), and myocardial infarction (1.2%).

Other serious clinical adverse experiences occurring since the drug was marketed or adverse experiences occurring in 0.5% to 1% of patients with hypertension or heart failure in clinical trials in order of decreasing severity within each category:

**Cardiovascular:** Cardiac arrest, myocardial infarction or cerebrovascular accident, possibly secondary to excessive hypotension in high-risk patients (see WARNINGS, Hypotension), pulmonary embolism and infarction, pulmonary edema, rhythm disturbances, atrial fibrillation, palpitation.

**Digestive:** Ileus, pancreatitis, hepatitis (hepatocellular or cholestatic jaundice), melena, anorexia, dyspepsia, constipation, glossitis, stomatitis, dry mouth.

**Musculoskeletal:** Muscle cramps.

**Nervous/Psychiatric:** Depression, confusion, ataxia, somnolence, insomnia, nervousness, paresthesia.

**Urogenital:** Renal failure, oliguria, renal dysfunction (see PRECAUTIONS and DOSAGE AND ADMINISTRATION).

**Respiratory:** Bronchospasm, rhinorrhea, sore throat and hoarseness, asthma, upper respiratory infection.

**Skin:** Exfoliative dermatitis, toxic epidermal necrolysis, Stevens-Johnson syndrome, herpes zoster, erythema multiforme, urticaria, pruritus, alopecia, flushing, hyperhidrosis.

**Special Senses:** Blurred vision, taste alteration, anosmia, tinnitus, conjunctivitis, dry eyes, tearing.

A symptom complex has been reported which may include a positive ANA, an elevated erythrocyte sedimentation rate, arthralgia/arthritis, myalgias, fever, serositis, vasculitis, leukocytosis, eosinophilia, photosensitivity, rash, and other dermatologic manifestations.

**Angioedema:** Angioedema has been reported in patients receiving VASOTEC (0.2%). Angioedema associated with laryngeal edema may be fatal. If angioedema of the face, extremities, lips, tongue, glottis, and/or larynx occurs, treatment with VASOTEC should be discontinued and appropriate therapy instituted immediately. (See WARNINGS.)

**Hypotension:** In the hypertensive patients, hypotension occurred in 0.9% and syncope occurred in 0.5% of patients following the initial dose or during extended therapy. Hypotension or syncope was a cause for discontinuation of therapy in 0.1% of hypertensive patients. In heart failure patients, hypotension occurred in 6.7% and syncope occurred in 2.2% of patients. Hypotension or syncope was a cause for discontinuation of therapy in 1.9% of patients with heart failure. (See WARNINGS.)

## Clinical Laboratory Test Findings

**Serum Electrolytes:** Hyperkalemia (see PRECAUTIONS), hyponatremia.

**Creatinine, Blood Urea Nitrogen:** In controlled clinical trials, minor increases in blood urea nitrogen and serum creatinine, reversible upon discontinuation of therapy, were observed in about 0.2% of patients with essential hypertension treated with VASOTEC alone. Increases are more likely to occur in patients receiving concomitant diuretics or in patients with renal artery stenosis. (See PRECAUTIONS.) In patients with heart failure who were also receiving diuretics with or without digitalis, increases in blood urea nitrogen or serum creatinine, usually reversible upon discontinuation of VASOTEC and/or other concomitant diuretic therapy, were observed in about 11% of patients. Increases in blood urea nitrogen or creatinine were a cause for discontinuation in 1.2% of patients.

**Hemoglobin and Hematocrit:** Small decreases in hemoglobin and hematocrit (mean decreases of approximately 0.3 g and 1.0 vol %, respectively) occur frequently in either hypertension or heart failure patients treated with VASOTEC but are rarely of clinical importance unless another cause of anemia coexists. In clinical trials, less than 0.1% of patients discontinued therapy due to anemia.

**Other (Causal Relationship Unknown):** In marketing experience, rare cases of neutropenia, thrombocytopenia, and bone marrow depression have been reported. A few cases of hemolysis have been reported in patients with G6PD deficiency.

**Liver Function Tests:** Elevations of liver enzymes and/or serum bilirubin have occurred.

**Dosage and Administration: Hypertension:** In patients who are currently being treated with a diuretic, symptomatic hypotension occasionally may occur following the initial dose of VASOTEC. The diuretic should, if possible, be discontinued for two to three days before beginning therapy with VASOTEC to reduce the likelihood of hypotension. (See WARNINGS.) If the patient's blood pressure is not controlled with VASOTEC alone, diuretic therapy may be resumed.

If the diuretic cannot be discontinued, an initial dose of 2.5 mg should be used under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, Drug Interactions.)

The recommended initial dose in patients not on diuretics is 5 mg once a day. Dosage should be adjusted according to blood pressure response. The usual dosage range is 10 to 40 mg per day administered in a single dose or in two divided doses. In some patients treated once daily, the antihypertensive effect may diminish toward the end of the dosing interval. In such patients, an increase in dosage or twice-daily administration should be considered. If blood pressure is not controlled with VASOTEC alone, a diuretic may be added.

Concomitant administration of VASOTEC with potassium supplements, potassium salt substitutes, or potassium-sparing diuretics may lead to increases of serum potassium. (See PRECAUTIONS.)

**Dosage Adjustment in Hypertensive Patients with Renal Impairment:** The usual dose of enalapril is recommended for patients with a creatinine clearance  $> 30$  mL/min (serum creatinine of up to approximately 3 mg/dL). For patients with creatinine clearance  $\leq 30$  mL/min (serum creatinine  $\geq 3$  mg/dL), the first dose is 2.5 mg once daily. The dosage may be titrated upward until blood pressure is controlled or to a maximum of 40 mg daily.

**Heart Failure:** VASOTEC is indicated as adjunctive therapy with diuretics and digitalis. The recommended starting dose is 2.5 mg once or twice daily. After the initial dose of VASOTEC, the patient should be observed under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, Drug Interactions.) If possible, the dose of the diuretic should be reduced, which may diminish the likelihood of hypotension. The appearance of hypotension after the initial dose of VASOTEC does not preclude subsequent careful dose titration with the drug, following effective management of the hypotension. The usual therapeutic dosing range for the treatment of heart failure is 5 to 20 mg daily given in two divided doses. The maximum daily dose is 40 mg. Once-daily dosing has been effective in a controlled study, but nearly all patients in this study were given 40 mg, the maximum recommended daily dose, and there has been much more experience with twice-daily dosing. In addition, in a placebo-controlled study which demonstrated reduced mortality in patients with severe heart failure (NYHA Class IV), patients were treated with 2.5 to 40 mg per day of VASOTEC, almost always administered in two divided doses. (See CLINICAL PHARMACOLOGY, Pharmacodynamics and Clinical Effects.) Dosage may be adjusted depending upon clinical or hemodynamic response. (See WARNINGS.)

**Dosage Adjustment in Patients with Heart Failure and Renal Impairment or Hyponatremia:** In patients with heart failure who have hyponatremia (serum sodium  $< 130$  mEq/L) or with serum creatinine  $> 1.6$  mg/dL, therapy should be initiated at 2.5 mg daily under close medical supervision. (See DOSAGE AND ADMINISTRATION, Heart Failure, WARNINGS, and PRECAUTIONS, Drug Interactions.) The dose may be increased to 2.5 mg b.i.d., then 5 mg b.i.d. and higher as needed, usually at intervals of four days or more, if at the time of dosage adjustment there is not excessive hypotension or significant deterioration of renal function. The maximum daily dose is 40 mg.

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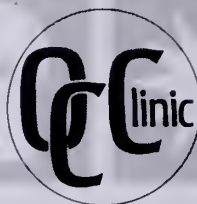


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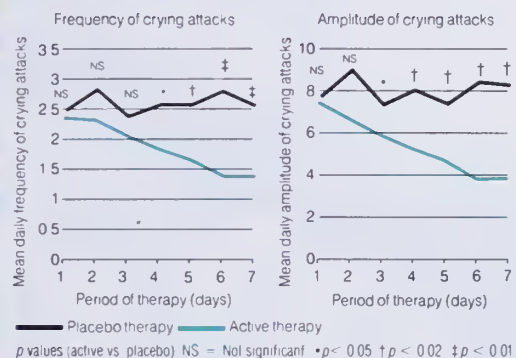
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The JOURNAL (ISSN 0030-1876) (USPS 285-000) is the official publication of the Oklahoma State Medical Association and is published monthly under the direction of the OSMA Board of Trustees. Editorial office is at 601 Northwest Expressway, Oklahoma City, OK 73118. Second class postage paid at Oklahoma City, OK 73125.

Subscription to the JOURNAL is included in membership dues. All other subscriptions are \$30 per year. Single issues are \$3 per copy, prepaid, subject to availability.

The JOURNAL does not assume responsibility for opinions expressed by the authors. Products and services advertised in the JOURNAL are neither endorsed nor guaranteed by the Oklahoma State Medical Association.

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# JOURNAL

OKLAHOMA STATE MEDICAL ASSOCIATION

MAY 1990

VOL. 83, NO. 5

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## ABOUT THE COVER



Perry A. Lambird, MD, Oklahoma City pathologist, begins his one-year term as president of the Oklahoma State Medical Association. Story on page 219.

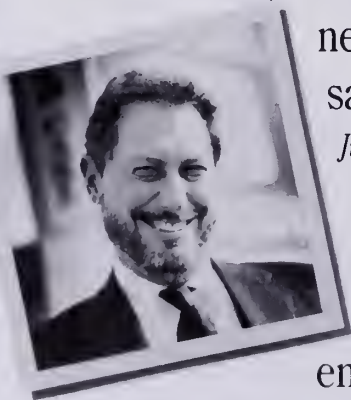
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### **References**

1. *USP DI Update*, September/October 1988, p 120
2. *Br J Clin Pharmacol* 1985;20: 710-713
3. *Data on file*, Lilly Research Laboratories
4. *Scand J Gastroenterol* 1987;22(suppl 136): 61-70
5. *Am J Gastroenterol* 1989;84: 769-774

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an excessive and somewhat hepatotoxic dose, with no evidence of a carcinogenic effect in rats, male mice, and female mice (given up to 360 mg/kg/day, about 60 times the human dose), and a negative mutagenicity battery are not considered evidence of a carcinogenic potential for Axid.

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In a two-generation, perinatal and postnatal fertility study in rats, doses of nizatidine up to 650 mg/kg/day produced no adverse effects on the reproductive performance of parental animals or their progeny.

**Pregnancy—Teratogenic Effects—Pregnancy Category C**—Oral reproduction studies in rats at doses up to 300 times the human dose and in Dutch Belted rabbits at doses up to 55 times the human dose revealed no evidence of impaired fertility or teratogenic effect, but, at a dose equivalent to 300 times the human dose, treated rabbits had abortions, decreased number of live fetuses, and depressed fetal weights. On intravenous administration to pregnant New Zealand White rabbits, nizatidine at 20 mg/kg produced cardiac enlargement, coarctation of the aortic arch, and cutaneous edema in one fetus, and at 50 mg/kg, it produced ventricular anomaly, distended abdomen, spina bida, hydrocephaly, and enlarged heart in one fetus. There are, however, no adequate and well-controlled studies in pregnant women. It is also not known whether nizatidine can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Nizatidine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

**Nursing Mothers**—Studies in lactating women have shown that 0.1% of an oral dose is secreted in human milk in proportion to plasma concentrations. Because of growth depression in pups reared by treated lactating rats, a decision should be made whether to discontinue nursing or the drug, taking into account the importance of the drug to the mother.

**Pediatric Use**—Safety and effectiveness in children have not been established.

**Use in Elderly Patients**—Healing rates in elderly patients were similar to those in younger age groups as were the rates of adverse events and laboratory test abnormalities. Age alone may not be an important factor in the disposition of nizatidine. Elderly patients may have reduced renal function.

**Adverse Reactions:** Clinical trials of varying durations included almost 5,000 patients. Among the more common adverse events in domestic placebo-controlled trials of over 1,900 nizatidine patients and over 1,300 on placebo, sweating (1% vs 0.2%), urticaria (0.5% vs <0.01%), and somnolence (2.4% vs 1.3%) were significantly more common with nizatidine. It was not possible to determine whether a variety of loss common events was due to the drug.

**Hepatic**—Hepatocellular injury (elevated liver enzyme tests or alkaline phosphatase) possibly or probably related to nizatidine occurred in some patients. In some cases, there was marked elevation (>500 IU/L) in SGOT or SGPT and, in a single instance, SGPT was >2,000 IU/L. The incidence of elevated liver enzymes overall and elevations of up to three times the upper limit of normal, however, did not significantly differ from that in placebo patients. Hepatitis and jaundice have been reported. All abnormalities were reversible after discontinuation of Axid.

**Cardiovascular**—In clinical pharmacology studies, short episodes of asymptomatic ventricular tachycardia occurred in two individuals administered Axid and in three untreated subjects.

**CNS**—Rare cases of reversible mental confusion have been reported.

**Endocrine**—Clinical pharmacology studies and controlled clinical trials showed no evidence of antiandrogenic activity due to nizatidine. Impotence and decreased libido were reported with equal frequency by patients on nizatidine and those on placebo. Gynecomastia has been reported rarely.

**Hematologic**—Fatal thrombocytopenia was reported in a patient treated with nizatidine and another H<sub>2</sub>-receptor antagonist. This patient had previously experienced thrombocytopenia while taking other drugs. Rare cases of thrombocytopenic purpura have been reported.

**Integumental**—Sweating and urticaria were reported significantly more frequently in nizatidine- than in placebo-treated patients. Rash and exfoliative dermatitis were also reported.

**Hypersensitivity**—As with other H<sub>2</sub>-receptor antagonists, rare cases of anaphylaxis following nizatidine administration have been reported. Because cross-sensitivity among this class has been observed, H<sub>2</sub>-receptor antagonists should not be administered to those with a history of hypersensitivity to these agents. Rare episodes of hypersensitivity reactions (eg, bronchospasm, laryngeal edema, rash, and eosinophilia) have been reported.

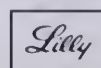
**Other**—Hyperuricemia unassociated with gout or nephrolithiasis was reported. Eosinophilia, fever, and nausea related to nizatidine have been reported.

**Overdosage:** Overdoses of Axid have been reported rarely. If overdosage occurs, activated charcoal, emesis, or lavage should be considered along with clinical monitoring and supportive therapy. Renal dialysis for four to six hours increased plasma clearance by approximately 84%.

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## Quicksand in the Garden

Primitive human tribes, with an instinct as unerring as a home-bound salmon, have always discovered any psychoactive substance present in regional plants. The Phoenicians found the poppy, the Africans found the coffee bean, and the Asians found tea, hemp, and rauwolfia. The American Indians used peyote, tobacco, and the coca leaf. Nearly all tribes have always known that fruit sugar or grain carbohydrate can be fermented into a drink that profoundly changes brain function.

These psychoactive substances have been a problem to human societies since discovery, and primitive societies invested them with magic and ritual, and tried to modulate their use through the offices of the shaman or priest. Throughout the evolution of human conventions, social control has been attempted, with implicit recognition that unbridled use of the more potent materials can be disastrous. The effect of those controls has been highly variable by time and place, and today recreational drug use is said to be the United States' biggest social problem. A "Drug War" has been declared. The social control of drug use is meager and erratic in the United States today.

When we look back down the tunnel of human history, we realize that the magnitude of society's substance abuse problem was forever changed when the chemists distilled ethanol and purified opium and cocaine. Thenceforth, total human disability became readily achievable by the persistent substance abuser, and unchecked drug use became capable of disabling or killing large cohorts of humans.

The current threat of a major drug disaster in our society despite the "Drug War" has brought forth recommendations that all drugs be "legalized" and then metered out to the addicted in order to break the criminal exploitation of drug supplies. The recent failure of Volstead Act prohibition to completely control alcohol consumption in the United States is cited as a predictor of future failure of any drug war aimed at cocaine, heroin, and marijuana.

This reasoning is seriously flawed. The Volstead Act did, in historical fact, cut US alcohol consumption and alcoholism significantly, even though alcohol use was not totally eliminated. Further, to liken the addictive potential of alcohol to cocaine or heroin is like comparing a pet tabby cat to a jungle tiger. For the person susceptible to alcoholism, it takes many months of drinking to become addicted—and many alcoholics may be rehabilitated. But for the person potentially addicted to cocaine or heroin, even one, two, or three doses may sometimes produce a recalcitrant addiction that will be carried a lifetime, and be controlled only by leading a highly structured life-style.

The susceptibility to serious alcohol addiction is statistically present in about 10% of the population, while the hard-core cocaine/heroin addiction susceptibility rate is unknown, but now estimated at 90-95%. Some physicians believe that essentially all humans are subject to narcotic addiction.

The significant difference in the effects of alcohol and narcotics on the central nervous system means that different levels of control will be needed for alcohol and for narcotic drugs. The total elimination of either alcohol or narcotics is an unrealistic goal, but legalization of cocaine and heroin will surely lead to the permanent entrapment of a large and burgeoning number of disabled and dependent citizens. The quicksand of drug dependency is tragically frequent in the culture that tolerates daily use of narcotic drugs.

Now we must remember the historical fact that narcotics were widely sold and used legally in the United States in the nineteenth century. The resulting epidemic spread of narcotic use and a deterioration of the social fabric led the United States to enact the Harrison Narcotic Act of 1914. Despite the present availability of methadone maintenance programs, illegal drug use is now pervasive and is an increasing problem for society. There is no proposed or imaginable legal rationing program that will

(continued)

contain our present epidemic if cocaine and heroin are to be legalized and dispensed to the addicted.

The "Drug War" will be won when all of our children have been raised in an environment where drug use is deprecated and potent psychoactive substances are unavailable for casual or recreational social use. When the misuse of alcohol or the addiction to drugs is universally considered to be a social

and personal deficiency and failure, then the terminal battle of the "Drug War" will have been engaged.

Physicians have the knowledge to hasten the evolution of our mores toward a drug-free culture.

*Ray V. McIntyre, M.D.*

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Our AMA is a respected voice in Washington, perfectly capable of shaping federal policy, if not sufficiently powerful to enact a proposal simply because we as physicians think something is a good idea. King Kanute could not restrain the tides and was foolish because he thought he could. The AMA has time and again successfully channeled the tides and does not deserve criticism for its wisdom. All Americans have been stripped of much of their freedom as the governmental colossi have grown unchecked for 60 years. Thanks to our AMA, we remain relatively more free than any other citizens.

The AMA is far more than our "voice" in Washington, despite the vital role of that mission. Of critical but often unnoticed importance is the AMA's role in setting policy for medicine as a whole. Seated in its House of Delegates are representatives from states large and small, specialty societies, medical schools, the uniformed services, health officers, representatives of organized hospital medical staffs, young physicians, residents, and medical students.



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Communication of accurate medical information, both social and scientific, is basic to medical practice in a modern age. *American Medical News* is the premier vehicle for learning of events vital to our practices. This superb weekly arrives with timely news, accurate and authoritative data, and substantial practice information because our AMA is there. We tend to forget that our AMA is a major voice in scientific communication, publishing over 35,000,000 journal issues a year. With *JAMA* and one specialty journal alone (membership benefits), one could be assured of not missing any major discovery in medicine.

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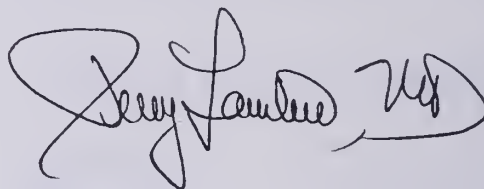
Truly, our AMA is a huge and vital organization. It provides copious information on possible practice sites, operates a placement service, through AMA Net links the computer literate with medical data bases, provides continuing medical education through modem, video cable, and conferences, trains medical leaders, provides a vehicle for the low cost acquisition of insurance and retirement income, defends us in the courts, and oversees every aspect

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From time to time one hears from a colleague, "The AMA doesn't represent me." In truth, our AMA represents each of us. If we can settle the differences

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# Spontaneous Splenic Rupture Secondary to Angiosarcoma

John W. Buckner III, MD; Garland Porterfield, MD; G. Rainey Williams, MD

Angiosarcoma of the spleen is a rare tumor with a very poor prognosis. Review of the world literature reveals only 57 reported cases of this neoplasm. Sixteen of these presented with an acute abdomen secondary to splenic rupture. Patients with this tumor have a mean survival time of 14.4 months after detection, and this decreases to 4.4 months after splenic rupture. The only rational treatment is splenectomy prior to splenic rupture. This paper describes another case presenting as spontaneous splenic rupture.

Angiosarcoma is a rare, soft tissue neoplasm. It probably accounts for less than 1% of all sarcomas.<sup>1</sup> Angiosarcomas of deep soft tissues are rare, constituting only 25% of all angiosarcomas. Deep tissues most often involved are breast, liver, and bone, with spleen being primarily involved less frequently.<sup>2</sup> Until 1985, only 57 cases of primary angiosarcoma of the spleen had been reported.<sup>3</sup> Of these, 16 presented as an acute abdomen secondary to spontaneous splenic rupture. This report describes an additional case and reviews the literature.

## Case Report

A 27-year-old man presented to the emergency room complaining of severe abdominal pain of 2 hours duration. The patient had been admitted 2 weeks earlier with severe lower thoracic "back pain." Evalu-

ation with thoracic spine x-rays, CT scan of thoracic spine, and blood work revealed no abnormalities, and the patient was discharged. There was no history of recent trauma.

Past medical history included an astrocytoma of the brain 2 years prior to this admission. He was treated with craniotomy and radiation therapy with no known recurrence.

Physical examination revealed a white male with pale, clammy skin, hypotension, and tachycardia. The abdomen was diffusely tender, especially in the upper quadrants. Peripheral blood showed a normochromic anemia (Hgb-10.4gm/ml), leukocytosis (WBC-17,000/cm<sup>3</sup>), and thrombocytopenia (Plt-116,000/cm<sup>3</sup>). CT of the abdomen revealed a large amount of free intraperitoneal blood and a non-homogeneous spleen that looked suspicious for anterior rupture. The patient was resuscitated with intravenous fluids and blood, with rapid stabilization of vital signs. At laparotomy 4 hours after admission, the patient was found to have approximately 6 units of blood in the peritoneal cavity, with a rupture of the inferior pole of the spleen. Splenectomy was performed and the abdomen was explored. Multiple small hemangiomas on the anterior surface of the liver were noted.

Pathologic examination revealed a 117 gm spleen with multiple lacerations over the anterior surface and several hemorrhagic parenchymal cysts (Fig 1). Microscopic review noted multiple tumors containing cavernous vascular spaces lined by atypical cells with hyperchromatic nuclei. This pathologic picture

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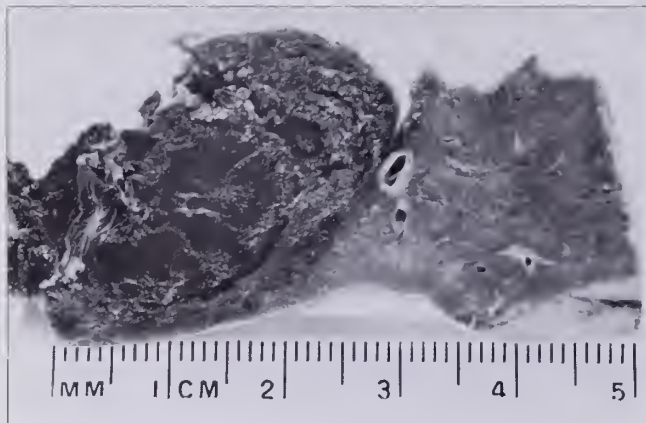


Figure 1. Spleen with rupture over anterior surface.

was consistent with primary hemangiosarcoma of the spleen (Fig 2).

The early postoperative course was uneventful, and the patient was discharged on the sixth postoperative day. Four weeks after discharge the patient returned complaining of increasing abdominal pain and was found to have enlargement of his liver. Despite a course of radiation therapy and aggressive chemotherapy, the patient deteriorated and died 112 days after diagnosis. The cause of death was thought to be exsanguinating intra-abdominal hemorrhage secondary to metastatic disease. Autopsy was not performed.

## Discussion

Langhans first described primary angiosarcoma of the spleen in a 30-year-old man in 1894.<sup>4</sup> Since then there have been 56 additional cases, making the total reported cases 57.<sup>3</sup> The disease apparently affects males and females with equal frequency, and the average age of those affected was 47 years. Thirty patients were 50 years of age or older, and only 4 were less than 20 years of age.

The pathogenesis of this tumor is unknown. Thorium dioxide (thorotrast) has been implicated as a sarcogenic agent closely linked to osteogenic sarcoma and Kupffer cell sarcoma of the liver.<sup>5</sup> There has been no significant history of exposure in patients developing sarcomas of the spleen. Some think that angiosarcomas represent malignant transformation in preexisting hemangiomas or hamartomas.<sup>6</sup>

The most common presenting complaint is abdominal pain, frequently localized to the left upper quadrant and probably due to splenic enlargement. Approximately 1 of 3 patients present dramatically with splenic rupture, as in this case. Splenic rupture is an extremely bad prognostic event as the mean survival time in these patients is 4.4 months com-

pared to 14.4 months in patients who have had splenectomy prior to rupture.<sup>7</sup> Our patient survived 3.7 months after splenic rupture.

Hematologic findings in patients with splenic angiosarcoma frequently include anemia, thrombocytopenia, and leukopenia. The mechanism producing these abnormalities is not completely understood. Platelets may be consumed in the stagnant vascular spaces within the tumor.<sup>8</sup> Anemia, found in 70% of patients,<sup>9</sup> is thought to be due to a microangiopathic process resulting in red cell damage and hemolysis.

At laparotomy, both splenic and hepatic involvement are usually found. De Navasque has suggested that the organ with the largest gross tumor is the primarily involved organ. This case, with smaller hepatic lesions, represents dissemination via the splenic vein.<sup>10</sup>

According to Chen and associates, metastases most commonly involved, in decreasing frequency, are liver, lung, bone, and lymph nodes.<sup>11</sup>

Currently the best treatment for this tumor is early splenectomy, but the high incidence of metastases present when tumor is detected limits surgical therapy as a curative modality. The rarity of this tumor has made it difficult to assess the effect of radiation and chemotherapeutic agents on this neoplasm.

## Conclusion

Splenic angiosarcoma is a very rare tumor with an extremely poor prognosis. The tumor is usually diagnosed very late, and the current modes of treat-

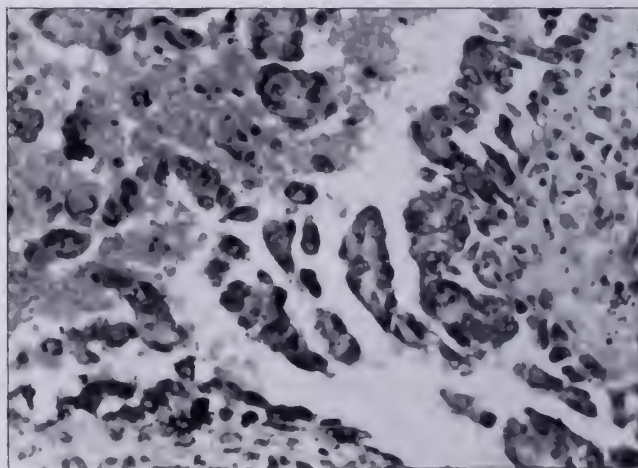


Figure 2. Microscopic view of spleen illustrating cavernous vascular spaces lined by atypical cells and hyperchromatic nuclei typical of hemangiosarcoma.

ment have been ineffective in dealing with this neoplasm. Approximately one-third of the tumors present with spontaneous splenic rupture. Splenic rupture is an extremely bad prognostic sign, and the only rational treatment is early diagnosis and splenectomy prior to splenic rupture. **J**

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## Coming next month

Articles in production for the June issue of the JOURNAL include a report on thrombosis in human pancreatic transplantation and the next biography in the Leaders in Medicine series.

# Malignant Melanoma — A New Epidemic

Harris D. Riley, Jr., MD

**The incidence of cutaneous malignant melanoma is rising steadily. Guidelines for early recognition and treatment as well as prevention of this potentially fatal disorder are outlined.**

**T**he incidence of cutaneous malignant melanoma is rising steadily throughout the world and is increasing more rapidly than that of any other cancer.<sup>1,2</sup> Recent data from the National Cancer Institute's Surveillance Epidemiology and End Results (SEER) system reveals an 80% increase in the incidence of melanoma in the United States between 1973 and 1980 — a rate of increase second only to that of lung cancer in women.<sup>3</sup> In fact, over the past 50 years there has been a 600% increase in the incidence of this disease in the United States.<sup>4</sup> It is responsible for almost 6,000 deaths per year.<sup>5</sup> Yet, it can be cured by early recognition and prompt treatment.

The prognosis of melanoma is negatively correlated with tumor thickness: patients with early "thin" primary melanoma have a 95% to 100% survival rate, whereas those with thick lesions have a poor prognosis.<sup>6</sup> Diagnosis and excision of strictly defined early melanoma (less than 0.76 mm in thickness) almost always results in cure of the lesion.<sup>3</sup>

The treatment for metastatic disease is discourag-

ing at present. Primary cutaneous melanoma is potentially fatal, but can be cured by recognition and removal in an early phase of development.<sup>7</sup> While most dermatologists are aware of this, many primary care physicians are not, but should be because in most instances they are the first physician consulted by the patient. Primary care physicians also have an important responsibility for the prevention of melanoma, as will be discussed later. Thus, the need for wide distribution of clinical criteria allowing an early diagnosis is apparent.

The possibility of cure by early recognition and excision is especially important in view of the current alarming increase in the incidence of primary cutaneous melanoma. In 1984, approximately 18,000 cases of cutaneous melanoma were diagnosed in the United States, and an estimated 5,500 patients died from metastatic melanoma.<sup>7</sup> Since that time, the estimated incidence has risen to more than 27,000 cases annually.<sup>8</sup> There is considerable circumstantial evidence that a significant influence contributing to the dramatic rise in the incidence of malignant melanoma is prolonged exposure to high-intensity ultraviolet radiation (UVR) as sunlight.<sup>4,9</sup> Studies in Australia, California, and Israel have shown that the incidence of skin cancer, including melanoma, is lower in those who immigrate to those sunny areas after the age of 10 years than in the native-born.<sup>8</sup> In the United States the increase in incidence has been particularly notable in the western states. It has been speculated that the high incidence in this region is probably the result of increased levels of UVR from abundant sunshine coupled with changes

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in clothing habits and alterations in life-styles that have led to considerable increases in time spent out-of-doors.<sup>4</sup> Artificial tanning devices may have the same effect.

With the current epidemic, patients with malignant melanoma are likely to be seen by physicians of many different specialties. All need to be familiar with the clinical features of the disease, recognizing the patients at high risk, and the best means of treatment. Unlike other cancers, which are often hidden from detection for long periods of time, cutaneous melanoma can be detected by careful examination of the skin. Again, early diagnosis and excision are the most important factors in effecting a cure.<sup>4</sup>

Although the problem has often been regarded as one of adults only, it should be of serious concern to the pediatrician and other physicians who see children. There are two basic reasons. First, ultraviolet light damage is quantitative. The younger the person when exposed to ultraviolet light, the greater the accumulation of exposure during the person's lifetime. Second, damage from sunlight is qualitative. Sunburn in childhood, particularly if severe, confers much greater risk than daily but lesser exposure in adults. One blistering sunburn in a child or teenager doubles the risk of melanoma. Thus, the seeds of skin cancer in adults are often sown in childhood. The risk of a newborn developing melanoma during his or her lifetime has increased from 1 in 1,500 some thirty years ago to 1 in 123 at present.<sup>8</sup>

It is vitally important for the physician to be aware of the characteristics of primary cutaneous melanoma in order to recognize it in an early phase of development. The American Academy of Dermatology has promulgated "Remembering Your A B C D" as a convenient method of recognizing the key clinical features of the malignant lesion<sup>9</sup>:

- Asymmetry of the lesion.
- Border irregularity in the lesion — scalloped or poorly circumscribed border. Both asymmetry and border irregularity result from disorderly, unrestrained growth of malignant melanocytes.
- Color variegation. While melanoma often displays an ominous black pigmentation, it also can manifest a disorderly, haphazard pattern of blue (because of melanin in the deep dermis), red (caused by vascular dilation), and white (regression).

- Diameter greater than 0.6 centimeters as a rule (diameter of pencil eraser).

In addition to these features, the surface of a melanoma may be elevated and irregular, a feature accentuated by illumination from the side. A recent increase in size or a change in color of a pigmented lesion is reported by at least 70% of patients with early malignant melanoma. Signs and symptoms of bleeding and ulceration usually signify more advanced disease.<sup>5</sup>

A color atlas published in a widely read medical journal has been helpful in improving the early diagnosis of melanoma.<sup>10</sup> Uniform tan or brown lesions with smooth or regular borders and a stable growth history indicate a benign condition, and variegated dark brown or, especially, black, gray, or blue lesions with irregular borders suggest melanoma.<sup>7</sup>

Although early diagnosis of melanoma is the key to prevention of metastatic disease, the recognition of persons with an increased risk of melanoma by virtue of their skin type, multiple nevi, or family history, or the presence of one or more precursor lesions also must be emphasized. The known precursors or associated lesions of cutaneous melanoma include lentigo maligna, large congenital melanocytic nevi, certain types of acral and mucosal pigmented lesions, and dysplastic melanocytic nevi.<sup>7</sup>

Extensive evaluation of families genetically predisposed to melanoma has resulted in the identification and characterization of a clinically and pathologically distinct nevus (the dysplastic nevus) in patients with hereditary melanoma and in many of their relatives. Dysplastic nevi, inherited in an autosomal dominant fashion, are the histogenetic precursors of melanoma in members of many melanoma-prone families. They are cutaneous flags that identify specific family members who are at greatly increased risk of melanoma. Members of melanoma-prone kindreds with acquired melanocytic precursors are several hundred times more likely to have melanoma than are comparable persons from the general population. The cumulative lifetime incidence of melanoma in such a family member approaches 100%. It is estimated that 5% to 10% of all melanomas occur in patients with a family history of the disease.<sup>3</sup> The recent isolation and characterization of the cutaneous malignant melanoma-dysplastic nevus gene should help elucidate the causes of familial melanoma.<sup>11</sup>

Dysplastic nevi occur in the usual site distribution of ordinary moles but, in addition, are often

found on the scalp, buttocks, and female breasts. Scalp lesions may be the earliest manifestation of the dysplastic nevus syndrome in some patients.<sup>3</sup> Unlike common acquired nevi, dysplastic nevi often are large and have irregular borders, a haphazard mixture of tan, brown, dark brown, and pink colors, and a margin that tends to be indistinct, fading into the adjacent normal skin. The patient with familial dysplastic nevi typically has an increased number of larger-than-normal, irregularly shaped, indistinctly bordered, variably pigmented nevi that retain a macular or pebbly plaque component. Although they are most common on the trunk, they also occur in locations on the skin that are unusual for common acquired nevi (ie, the scalp, buttocks, and female breasts).<sup>3</sup>

Pediatricians and other physicians who see children are in key positions to reduce the toll from melanoma. Pediatric intervention involves two basic approaches. First, as previously mentioned, important melanoma precursors may become apparent during infancy, childhood, or adolescence, and deserve early recognition and consideration for prophylactic removal. Two such potential precursors usually characterized by the presence of nevus cells are large congenital nevocellular nevi (recognizable at birth) and dysplastic melanocytic nevi.<sup>12</sup> Second, education of children, parents, athletic directors, and the community on the dangers of overexposure to the sun and tanning devices and on the nature of effective precautions is encouraged.<sup>8</sup> It is said that more than one-half of the average person's sun exposure takes place in childhood. Preventive measures should begin in infancy. Protection against UVR should be individualized and governed by the person's pigmented constitution and of course by the type and amount of exposure. Preventive measures range from avoidance of sun exposure at times of peak intensity to protective clothing to topical application

of proper types of sunscreens. The use of sunscreens deserves particular attention. Studies have shown that routine use of sunscreens during the first 18 years of life can reduce skin cancer by 78%.<sup>8</sup>

Pediatricians practice effective prevention against infectious diseases, accidents, and other disorders. This preventive approach should be extended to protection against damage from sun exposure. All physicians should be sensitive to the occurrence of skin lesions that are precursors of or early changes in the development of malignant melanoma. □

#### Acknowledgment

Appreciation is expressed to Richard L. Detlefs, MD, and Mark A. Everett, MD, for review of the manuscript and to Kristi Sue Stone for typing the manuscript.

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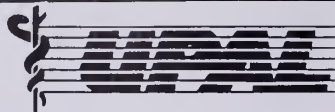
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May 4th inauguration

## Perry Lambird assumes presidency during Oklahoma City meeting

Perry A. Lambird, MD, an Oklahoma City pathologist, became the 85th president of the Oklahoma State Medical Association (OSMA) early this month.

He assumed office May 4 during the Annual Meeting of the OSMA House of Delegates, held this year at the Marriott Hotel in Oklahoma City. He succeeds John R. Alexander, MD, an internist in Tulsa.

A native of Reno, Nevada, Dr Lambird is a 1962 graduate of Johns Hopkins University School of Medicine, where he was elected to Alpha Omega Alpha, the national medical honor society. In 1973 he earned an MBA with High Honors at Oklahoma City University.

Long active in organized medicine, Dr Lambird is a member of the OSMA Board of Trustees, a



Dr Lambird

delegate to the American Medical Association (AMA) and a director of the Oklahoma Medical Political Action Committee (OMPAC). He is chairman of the OSMA Council on Governmental Activities and a member of both the Council on Planning and Development and the Council on State Legislation and Regulation.

Dr Lambird currently serves on the AMA's Joint Committee on Technology Diffusion, Ad Hoc Committee on Peer Review Organizations, and Council on Medical Service. He is also a clinical professor in the University of Oklahoma Department of Pathology.

The new president has been actively involved in the leadership of many community organizations, including the Oklahoma Symphony Orchestra; Historical Preservation, Inc, of Oklahoma City; Ballet Oklahoma; and the Oklahoma City Chamber of Commerce.

Dr Lambird and his wife Mona have four children, Allison, Jennifer, Elizabeth, and Susannah.

□

## Planning and development council meets at Roman Nose Resort

At its spring meeting the OSMA Council on Planning and Development studied the association's long-range objectives and formulated recommendations for the Board of Trustees.

The meeting was held May 9-11 at Roman Nose Resort near Watonga. The activities and goals considered were diverse, as illustrated by the following examples.

A recommendation from the Council on Public and Mental Health to support the AMA Health Access America Plan, followed by further study of the plan on an "Oklahoma basis," was endorsed.

The Council on Medical Education will continue to provide medical education to physicians through OSMA-sponsored seminars, including seminars on child abuse, specialty-specific seminars, and PLICO.

The Council on State Legislation and Regulation

will meet four times during legislative sessions, facilitate both short- and long-term legislative goals, identify long-term issues that will come before the legislature in the next five to ten years, identify medical issues not being addressed by the legislature, and provide information to the legislature about medical issues on its upcoming agenda.

Goals of the Council on Governmental Activities will include obtaining a single Medicare reimbursement zone in Oklahoma, maintaining a strong relationship with the AMA Washington office and their lobbyists, implementing a series of meetings between Oklahoma physicians and their congressional delegation, and increasing the flow of money to Oklahoma under RBRVS.

The Council on Member Services will continue to research additional insurance programs for OSMA



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## Council meeting *(continued)*

members, as well as determine additional opportunities for generating non-dues revenue.

The primary activity of the Council on Medical Services will continue to be the review and adjudication of grievances between physician and patient or physician and third party carrier.

The Oklahoma Medical Political Action Committee (OMPAC) will work to increase its membership to 50% of the total OSMA membership, sponsor seminars to increase the political awareness and involvement of physicians and their spouses, and increase student and resident involvement. □

## *Journal wins Honorable Mention in medical journalism contest*

The JOURNAL of the Oklahoma State Medical Association has earned national recognition once again, winning Honorable Mention in this spring's 15th annual Sandoz Pharmaceuticals medical journalism competition.

This is the third Sandoz award in four years for the JOURNAL, which won a Special Award last year and First Prize in 1987. The JOURNAL also finished first in 1978 and earned Honorable Mention in 1983.

The Sandoz awards, which recognize the unique importance of state and local professional journals, are based on outstanding design and editorial qualities.

Judge Paul Fisher, professor at the University of Missouri School of Journalism, commended the JOURNAL's neatness, attention to detail, and strong editorial performance. He concluded, "It's a very solid, very professional, very well edited publication."

Craig D. Burrell, MD, vice president of Sandoz, said, "Readers of medical and pharmaceutical publications receive stacks of journals, magazines, and other mail. It is a tribute to the editorial staffs of these low-budget local publications that they are so avidly read by many readers who rank them with major national media."

Twenty-seven prizes were awarded this year to publications in five categories — state medical associations, local medical publications, state pharmaceutical associations, hospitals, and newsletters. □



## OSMA council reminds physicians to observe drugs' indications

H<sub>2</sub> receptor antagonists continue to be the major drug category for the Oklahoma Vendor Drug Program, reports the OSMA Council on Medical Services. Approximately 16%, or \$6,700,000, of the program's \$41 million budget in 1989 was spent on this type of drug.

According to the council, the Advisory Committee to the Department of Human Services (DHS) is concerned that 70% of the prescriptions for H<sub>2</sub> receptor antagonists were for full therapeutic doses continued for months, and sometimes years, at a time. While such extended treatment may be appropriate in some cases, the committee believes that excessive amounts are being obtained by patients who receive numerous refills of the full therapeutic dose. Whether patients are using the medication themselves, sharing it, or otherwise diverting it is unknown, but the cost is considerable and encumbers the DHS's ability to keep up with the ever-increasing cost of prescription drugs.

The committee anticipates that if each physician were careful to prescribe only the indicated amount of H<sub>2</sub> blocker, one million dollars or more could be saved in a program that already experiences excessive demands.

Physicians are reminded that for acute peptic ulcer, a full therapeutic dose for four to eight weeks

is adequate for healing in most cases. If there is recurrent disease or a complication of peptic ulcer or bleeding, a maintenance dose should be administered nightly. Antacids continue to be as efficacious as H<sub>2</sub> receptor antagonists for symptomatic therapy.

For reflux esophagitis, the full therapeutic dose is administered for four to six weeks and possibly a maintenance dose at bedtime. Elevation of the head of the bed and, when possible, avoiding drugs that relax the lower esophageal sphincter (eg, anticholinergics, calcium channel antagonists, nitroglycerin, and theophylline), are both very helpful. Certain foods, like chocolate, peppermint, and foods with high fat content, as well as alcohol and nicotine, decrease lower esophageal sphincter pressure and make reflux esophagitis worse. Also, metoclopramide (Reglan), which is less expensive than H<sub>2</sub> antagonists, is beneficial in increasing lower esophageal sphincter pressure and emptying the stomach, and works well for some patients.

H <sub>2</sub> Receptor Antagonist	Full Therapeutic Dose	Maintenance
Cimetidine (Tagamet)	300 mg QID (w/meals & HS)	400 mg HS
Rantidine (Zantac)	150 mg BID	150 mg HS
Famotidine (Pepcid)	40 mg HS	20 mg HS

□

## FROM THE OSDH

### OSDH reviews Rocky Mountain spotted fever in Oklahoma, 1989



Oklahoma, which in the past had the highest annual incidence rate of Rocky Mountain spotted fever (RMSF) in the United States with an average of one hundred cases per year for the last ten years, saw a decline from 94 cases in 1988 to 65 cases in 1989.

Seventy-five percent of the reported cases met the confirmed-case criteria (four-fold rise in IFA or LA or clinically consistent with single convalescent IFA  $\geq$  1:64), 9% were probable cases (single convalescent titer IFA 1:128 or LA  $\geq$  1:128 or Proteus  $\geq$  1:320), and 15% were clinical cases who were clinically consistent with fever  $\geq$  105°F, rash, and tick bite. Of

Oklahoma's 66 cases, 64% were hospitalized, with one fatality.

The clinical information obtained from the reported cases revealed typical symptoms including fever (91%), myalgias (74%), headache (73%), and rash (69%); with 51% reporting rash on the palms and soles. Patients received prompt treatment by the local physicians on an average of six days from the date of onset of symptoms. Sixty-nine percent received tetracycline and 22% received chloramphenicol.

The descriptive epidemiology of RMSF in Oklahoma remains stable from year to year. The seasonal distribution of RMSF in 1989 is quite similar to

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## Spotted fever (continued)

previous years; 82% of cases had onset from April through August with the greatest peak in May (22%). This corresponds to months of full outdoor activities. Geographically, 35 counties reported cases, with the central and eastern counties being more frequently affected. The greatest number of cases occurred in Tulsa county (11%) and the second greatest in Oklahoma county (8%). Okfuskee county had the highest rate of RMSF with 17.7 per 100,000. Ages of cases ranged from 2 years to 80 years old. The incidence was much greater in children; 39% of cases were less than 15 years old. The greatest number of cases was seen in the 0-9 year age group (31%), while it is of particular interest to note that 17% of the cases were age 60 and over. Males were affected more than females in most of the age groups; overall, we noted that males were affected twice as much (68%) as females (31%). Seventy-four percent of cases were white, and 12% were American Indian.

The incubation period for RMSF ranges from 2 to 14 days, with an average of 7 days from the tick exposure. Sixty-eight percent of Oklahoma's 1989 cases reported a tick bite or attachment, and an additional 20% recalled being in a tick-infested area in the two weeks before onset of symptoms; 6% had no known tick bite or exposure in an infested area.

The etiologic agent, *Rickettsia rickettsii*, belongs to the spotted fever group or rickettsiae and ordinarily is transmitted to humans by the bite of an infected tick, although contamination of skin with crushed tissues or feces of the infected tick may also cause infection. *R. rickettsii* is transmitted transstadially and transovarially in ticks, thus allowing maintenance of the agent in nature. The tick is both the vector and the main reservoir. The primary vector responsible for transmission of Oklahoma RMSF is the American dog tick (*Dermacentor variabilis*), while the Rocky Mountain wood tick (*Dermacentor andersoni*) is responsible for transmission of RMSF in the western and northern states.

Since several hours (4-10) of attachment of the tick are required before the rickettsiae become reactivated to infect humans, we advise searching the total body area every 3-4 hours for attached ticks if working or playing in infested areas and carefully deticking cats and dogs to minimize the tick population near residences. Another preventive measure includes the use of insect repellents (DEET) on the skin and insecticides (permethrin-containing compounds) on clothing. In addition, wearing long pants and long-sleeved shirts is a prudent measure. □



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## My First Stethoscope

by William P. Truels, MD

Most doctors remember their first stethoscope, almost as fondly as their first car or their first love affair. The stethoscope is the first instrument a medical student buys. It symbolizes his or her future role as a physician and marks a rite of passage into a world of life and death decisions.

The purchase of the proper stethoscope is thus an extremely important matter, not to be taken lightly if the correct diagnosis is to be made.

"Which stethoscope is the best one?" I asked Bradley Chastain, my dormitory roommate. Brad was at the top of the class and always had the best answer, no matter what you asked him.

"Some of them have single tubes and some of

them have double tubes," Brad began. "In my opinion the double tube model is better because you can hear twice as much sound. You could miss a subtle heart murmur or diagnostic 'click' with the single tube model," Brad explained.

Accordingly our group of five got on the Chicago elevated train to go downtown and purchase our double-lumen stethoscopes. We always traveled in our group of five — that was how we were assigned alphabetically to the cadavers. Trefzger, Truels, Truewater, Turner, and Tylkowski — we all shared cadaver number fourteen. We studied together, played basketball together, and on Friday nights we'd all go out and eat pizza together.

None of us knew each other before medical school, and we rarely saw each other after our training was completed. But in those days we all shared one common bond — the desire to complete medical school and get on with our lives.

When we arrived at the medical supply store, we looked at all the stethoscopes. The length of the tubing, the size of the bell and diaphragm portions of the stethoscope, even the type of earpiece were all vitally important considerations. The hottest selling stethoscope was the Lumiscope, a Japanese copy of the highly touted Rappaport-Sprague, for about half the price. We each bought one and carved our initials and the date, 1-7-69, on the bell.

Needless to say, we were all so excited about our new purchases that we decided to wear our stethoscopes on the way home. We tried to act casual as the people on the subway train wondered why we were wearing stethoscopes around our necks. Certainly we were too young to be doctors! I even fantasized someone on the subway suddenly developing a heart attack, forcing my stethoscope into active duty to save the day!

My stethoscope served me well until I decided to become a surgeon. I would proudly wear the stethoscope around my neck during rounds or when seeing a new patient. I always felt that it lent a sort of professional credibility that overcame my otherwise youthful demeanor. However, the first day on surgery, my junior resident, Alvin Delaney, read me the riot act.

"Dr Truewater, do you wish to become a surgeon?" Alvin asked in a rather crude tone of voice.

"Most certainly," I replied.

"Then you need to know something about stethoscopes," Alvin replied brusquely.

"I know quite a bit about stethoscopes," I said. "I studied them quite thoroughly as a first-year medical

Direct correspondence to William P. Truels, MD, 3400 Northwest Expressway, Suite 820, Oklahoma City, OK 73112.

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student. The double lumen types give the best audio resolution," I declared.

"That's not what I mean, Truewater," Alvin replied. "The first thing you need to know is that surgeons don't use double-lumen stethoscopes. They use single-lumen stethoscopes. And they don't wear them around their necks, they stick them in their back pockets!"

"No problem," I replied. "Single-lumen stethoscopes are almost as good anyway."

"You're missing the point, Truewater," he said, grasping my stethoscope and throwing it fifty feet down the marble floor of the old main surgery ward.

"You see, Dr Truewater," Alvin continued, as I watched my beloved double-lumen stethoscope go bouncing down the hallway, "stethoscopes are used for making diagnoses. Medical doctors make diagnoses. Surgeons act!"

But I don't understand," I replied. "Don't you have to make the diagnosis before you can act?"

"Not in every instance," Alvin responded. "Sometimes you have to take the bull by the horns and operate, even if you don't know the exact diagnosis!"

"And you certainly don't need a cardiologist's stethoscope to listen to bowel sounds!" Alvin continued. "No, what I want to see you do is carry a hemostat in your hand and practice opening and closing it right-handed as well as left-handed to develop your technical skills. Keep that stethoscope in your back pocket!"

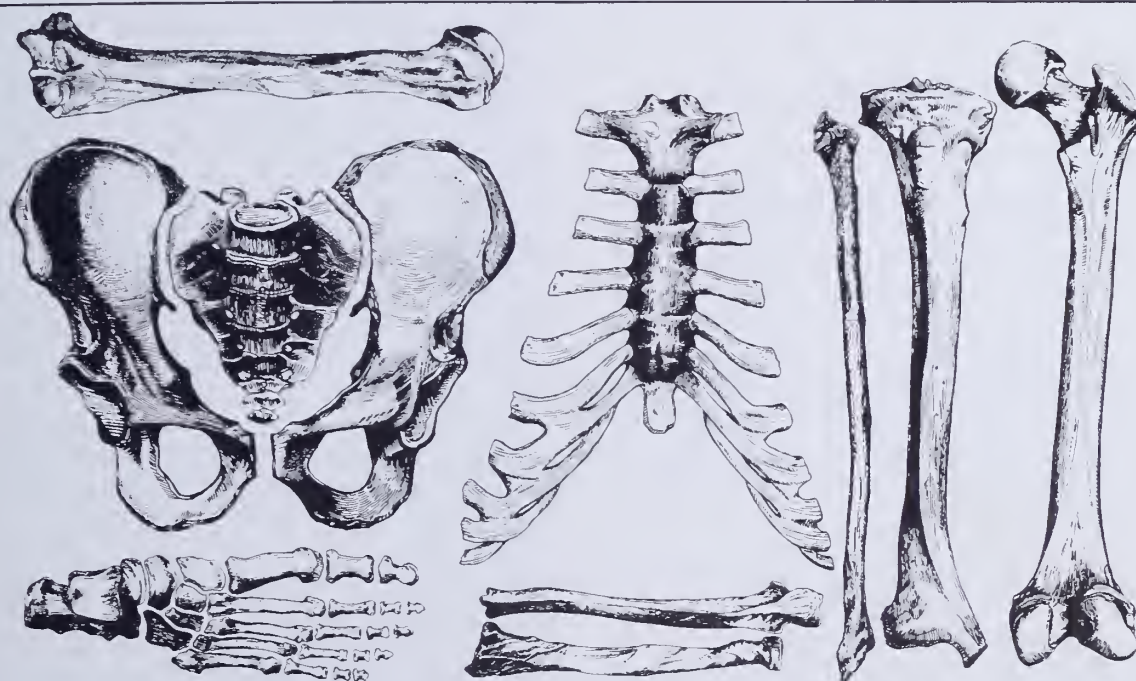
"No problem," I answered coolly as I began clicking my hemostat. I picked up my fractured stethoscope and stuck it in my back pocket.

Hey," I replied, "I can adapt!"

Twenty years later, my wife and I were cleaning the attic. This is always a painful experience for me, as I'm sort of a pack rat and try to hold on to everything I've ever owned. My wife, Margaret, on the other hand, believes in getting rid of unnecessary items that do nothing but gather dust in the attic.

"Do you need this old, broken stethoscope?" Margaret asked, as she held up my beloved Lumi-scope.

I looked at my stethoscope with the old fractured bell. The double-lumen tubing was cracked with age in several places, and the special earpieces had long



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## First stethoscope *(continued)*

since disappeared. I wiped off the bell with a rag and saw my initials inscribed, along with the date, 1-7-69.

"That thing looks like it's been through the war!" Margaret added.

"It has!" I replied, as I carefully placed my beloved stethoscope back in its original box. "It's been through the school of Hard Knox. You know, it's hard to believe, but that stethoscope is already twenty years old!"

I've since had my stethoscope restored and mounted on the wall in my office.

"That looks like your original stethoscope!" a patient commented one day during her postoperative visit. "I'll bet that means a lot to you!"

"It does," I replied. "I can still remember the day I bought it."

"Do surgeons use stethoscopes?" my patient asked innocently.

"Certainly," I replied. "But surgeons carry stethoscopes in their back pockets, so they won't be

confused with medical doctors. You know, it always helps to make the correct diagnosis before you operate!"

### The Author

William P. Truels, MD, is an Oklahoma City surgeon and assistant editor of the Oklahoma County Medical Society's *Bulletin*.

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## DEATHS

### Martin James Fitzpatrick, MD 1921 - 1990

Martin J. Fitzpatrick, MD, Muskogee, an OSMA Life Member, died at his home March 27, 1990. Dr Fitzpatrick was born in Balboa, Canal Zone, and graduated from Columbia University College of Physicians and Surgeons, New York, in 1945. He taught at both the University of Kansas School of Medicine and the New York University School of Medicine before joining the OU College of Medicine in 1969 as a professor. He was named dean of the Tulsa branch in 1974. Dr Fitzpatrick became chief of staff of the Muskogee VA facility in 1978 and retired in 1987.

### Vincel Sundgren, MD 1915 - 1990

OSMA Life Member Vincel Sundgren, MD, longtime Tulsa internist, died March 1, 1990. Dr Sundgren, a 1943 graduate of the University of Kansas School of Medicine, was born in Falun, Kansas. He completed an overseas tour of duty during World War II and began his practice in Tulsa in 1948.

## IN MEMORIAM

### 1989

Mary Edna Sippel, MD	April 10
Ruben Hilton Mayberry, MD	April 20
Norman Eugene Dearnbarger, MD	May 6
Gordon Kent Jimerson, MD	May 6
Orville McClure Woodson, MD	May 11
Robert Sears Davis, Jr., MD	May 13
James Richard Riggall, MD	May 30
Howard Choice Martin, MD	July 23
D. Evelyn Miller, MD	July 30
Nevin Wilson Dodd, MD	July 31
Alwyn Travers Kornblee, MD	August 7
Edward Keats Norfleet, MD	August 13
Wayman Jackson Thompson, MD	September 20
Rheba L. Huff Edwards, MD	September 30
George Harry Garrison, MD	October 5
Monroe Ruework Jennings, MD	October 27
Edmund Gordon Ferguson, MD	November 17
Don Lee Dycus, MD	December 6
Sylvester Robert Shaver, MD	December 16
Charles Edwards Leonard, MD	December 27

### 1990

John Justice Batchelor, MD	January 8
Fred W. Sellers, MD	January 11
Dewey Lee Mathews, MD	January 18
Powell Everett Fry, MD	January 28
Alpha Louis Johnson, MD	February 3
Marshall W. Opper, MD	February 12
Vincel Sundgren, MD	March 1
Martin James Fitzpatrick, MD	March 27



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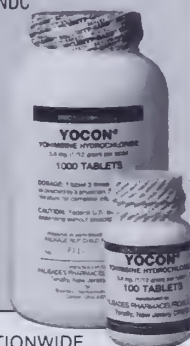
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#### References:

1. A. Morales et al., New England Journal of Medicine, 1221, November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27:2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128, 45-47, 1982.

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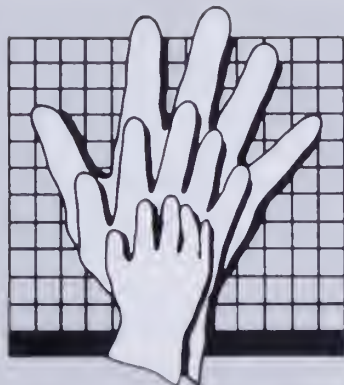
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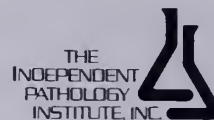
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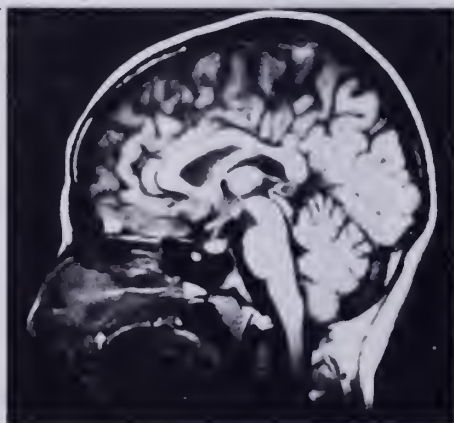
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### News

Readers are encouraged to submit news items of interest to Oklahoma physicians. Where dates of meetings, etc., are important, please remember that each issue closes on the first day of the *preceding* month and reaches subscribers in the latter half of the month of publication.

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■ Among the award winners at the OU College of Medicine Alumni Dinner Dance earlier this month was Oklahoma City internist C. Alton Brown, MD, a 1943 graduate. Dr Brown, chairman and president of the Physicians Liability Insurance Company (PLICO), was named Private Practice Physician of the Year. Receiving the Amicus Medicinae, or Friend of Medicine, award was Rodman Frates, president and chief executive officer of C.L. Frates and Company. The dinner dance was May 3 at the Marriott Hotel in Oklahoma City; it was scheduled in conjunction with the Annual Meeting of the OSMA House of Delegates.

■ The Oklahoma State Medical Association and the Oklahoma Osteopathic Association, in cooperation with Aetna Medicare, are presenting a series of two-day seminars on Medicare. The programs are designed to provide basic and advanced information on CPT and ICD-9 coding and the latest information on 1990 Medicare regulations. Fee for the programs, which run Wednesdays and Thursdays from 8 AM to 5 PM, is \$30, and registration is limited to 100 participants per site. Programs remaining in the schedule are Oklahoma City, May 23-24; Tulsa, May 30-31; McAlester, June 6-7; Ardmore, June 13-14; and Ponca City, June 20-21. All sessions will be held at the local vo-tech except the last, which will be at the Marlin Conference Center in Ponca City.

■ The giant NAMES Memorial AIDS Quilt will be displayed at the Tulsa Convention Center November 30 through December 2, 1990, in conjunction with World AIDS Day, December 1. The ongoing goals of the quilt project are to increase community awareness of the AIDS epidemic, permit surviving loved ones to work through their grief by making new quilt panels, and raise needed funds for local AIDS care-giving organizations. For more information about the quilt project, call Jack Francis, Tulsa NAMES project coordinator, (918) 492-7787.

■ William N. Harsha, MD, Oklahoma City, has received the 1990 Luke's Legacy Award, annual humanitarian award of Esperança, an organization of volunteers that provides medical services in the Amazon Basin. Dr Harsha, an orthopaedic surgeon, has donated his services to Esperança on three occasions and is the only physician in the United States to receive the award.

■ The American College of Physicians (ACP) has published a new Ethics Manual, a guide to making ethical decisions in medicine and a code of professional ethics. Among the subjects addressed are withdrawal of life support, treatment of AIDS, cost control, confidentiality, criticism of a colleague, euthanasia, physicians and the news media, abortion and contraception, and advertising. Compiled by the ACP's Ethics Committee, the manual is available from ACP's Subscriber Services for \$7. To order, call (215) 351-2600.

■ Last year, according to the *March Epidemiology Bulletin* of the Oklahoma State Department of Health (OSDH), Oklahoma experienced its largest outbreak of measles since 1980. From January 1 to October 31, 1989, 110 cases of measles were reported in the state. Three of the four major outbreaks were school-based and the majority of cases occurred in the 15-19 age bracket. Ninety-four (85%) of the 110 cases met the Centers for Disease Control (CDC) measles case definition of a fever of 101° or greater, a rash of at least three days' duration, cough, conjunctivitis, or coryza. Six of the cases were students on five college/university campuses. At the time of the report, there had been no measles-related deaths in Oklahoma.

The measles outbreak of 1990 is running well ahead of the 1980 and 1989 rates. By April 11, counties across the state had reported 124 cases. Most were occurring among school-age children who either had not been immunized or had received the measles vaccine prior to age 15 months, said Phyllis McKee, director of immunizations at OSDH.

■ With a little education, physicians significantly increase their rate of reporting adverse drug reactions, says a report in the April 4 *Journal of the American Medical Association*. According to the authors, only a fraction of adverse drug reaction (ADR) reports received by the US Food and Drug Administration (FDA) come directly from physicians; most are filed by pharmaceutical manufacturers. After the FDA funded a pilot program in Rhode Island to promote its reporting system to physicians via advertising, mailings, and articles, ADR reports increased more than 17-fold. J

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The JOURNAL (ISSN 0030-1876) (USPS 285-000) is the official publication of the Oklahoma State Medical Association and is published monthly under the direction of the OSMA Board of Trustees. Editorial office is at 601 Northwest Expressway, Oklahoma City, OK 73118. Second class postage paid at Oklahoma City, OK 73125.

POSTMASTER: Send all change of address notices to 601 Northwest Expressway, Oklahoma City, OK 73118.

Subscription to the JOURNAL is included in membership dues. All other subscriptions are \$30 per year. Single issues are \$3 per copy, pre-paid, subject to availability.

National advertising representative: State Medical Journal Advertising Bureau, Inc., 711 South Boulevard, Oak Park, IL 60302, phone (708) 383-8000.

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JUNE 1990

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**ABOUT THE COVER**



This month the JOURNAL continues its Leaders in Medicine series with the biography of retired neurosurgeon Jess D. Herrmann, MD. Story on page 258.

Photograph by Jim Thomas. Art direction by Graphic Art Center, Oklahoma City.



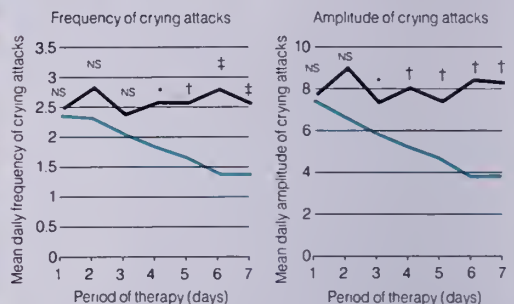
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<sup>1</sup> Kanwalji SS, Jasbir KS. Simethicone in the management of infant colic. *Practitioner* 1988;232:508

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Dr. Holwick outside of hospital where she practices as a civilian traumatologist.



Dr. Holwick in operating room at Letterman Army Medical Center.

## JANN L. HOLWICK, M.D.

General and Trauma Surgeon.  
Captain, U.S. Army Reserve.

**EDUCATION** University of Southern California, B.S.;  
University of California School of Medicine.

**RESIDENCY** Harbor General Hospital—UCLA  
Medical Center.

**HOSPITAL AFFILIATIONS** St. Luke Hospital;  
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- Most patients experience  
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### **References**

1. *USP DI Update*, September/October 1988, p 120.
2. *Br J Clin Pharmacol* 1985;20:710-713.
3. Data on file, Lilly Research Laboratories.
4. *Scand J Gastroenterol* 1987;22(suppl 136):61-70.
5. *Am J Gastroenterol* 1989;84:769-774.

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**Precautions:** General—1. Symptomatic response to nizatidine therapy does not preclude the presence of gastric malignancy.

2. Dosage should be reduced in patients with moderate to severe renal insufficiency.

3. In patients with normal renal function and uncomplicated hepatic dysfunction, the disposition of nizatidine is similar to that in normal subjects.

**Laboratory Tests**—False-positive tests for urobilinogen with Multistix<sup>®</sup> may occur during therapy.

**Drug Interactions**—No interactions have been observed with theophylline, chloridiazepoxide, lorazepam, lidocaine, phenytoin, and warfarin. Axid does not inhibit the cytochrome P-450 enzyme system; therefore, drug interactions mediated by inhibition of hepatic metabolism are not expected to occur. In patients given very high doses (3,900 mg) of aspirin daily, increased serum salicylate levels were seen when nizatidine, 150 mg b.i.d., was administered concurrently.

**Carcinogenesis, Mutagenesis, Impairment of Fertility**—A two-year oral carcinogenicity study in rats with doses as high as 500 mg/kg/day (about 80 times the recommended daily therapeutic dose) showed no evidence of a carcinogenic effect. There was a dose-related increase in the density of enterochromaffin-like (ECL) cells in the gastric oxyntic mucosa. In a two-year study in mice, there was no evidence of a carcinogenic effect in male mice, although hyperplastic nodules of the liver were increased in the high-dose males as compared with placebo. Female mice given the high dose of Axid (2,000 mg/kg/day, about 330 times the human dose) showed marginally statistically significant increases in hepatic carcinoma and hepatic nodular hyperplasia with no numerical increase seen in any of the other dose groups. The rate of hepatic carcinoma in the high-dose animals was within the historical control limits seen for the strain of mice used. The female mice were given a dose larger than the maximum tolerated dose, as indicated by excessive (30%) weight decrement as compared with concurrent controls and evidence of mild liver injury (transaminase elevations). The occurrence of a marginal finding at high dose only in animals given

an excessive and somewhat hepatotoxic dose, with no evidence of a carcinogenic effect in rats, male mice, and female mice (given up to 360 mg/kg/day, about 60 times the human dose), and a negative mutagenicity battery are not considered evidence of a carcinogenic potential for Axid.

Axid was not mutagenic in a battery of tests performed to evaluate its potential genetic toxicity, including bacterial mutation tests, unscheduled DNA synthesis, sister chromatid exchange, mouse lymphoma assay, chromosome aberration tests, and a micronucleus test.

In a two-generation, perinatal and postnatal fertility study in rats, doses of nizatidine up to 650 mg/kg/day produced no adverse effects on the reproductive performance of parental animals or their progeny.

**Pregnancy—Teratogenic Effects—Pregnancy Category C**—Oral reproduction studies in rats at doses up to 300 times the human dose and in Dutch Belted rabbits at doses up to 55 times the human dose revealed no evidence of impaired fertility or teratogenic effect; but, at a dose equivalent to 300 times the human dose, treated rabbits had abortions, decreased number of live fetuses, and depressed fetal weights. On intravenous administration to pregnant New Zealand White rabbits, nizatidine at 20 mg/kg produced cardiac enlargement, coarctation of the aortic arch, and cutaneous edema in one fetus, and at 50 mg/kg, it produced ventricular anomaly, distended abdomen, spina bifida, hydrocephaly, and enlarged heart in one fetus. There are, however, no adequate and well-controlled studies in pregnant women. It is also not known whether nizatidine can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Nizatidine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

**Nursing Mothers**—Studies in lactating women have shown that 0.1% of an oral dose is secreted in human milk in proportion to plasma concentrations. Because of growth depression in pups reared by treated lactating rats, a decision should be made whether to discontinue nursing or the drug, taking into account the importance of the drug to the mother.

**Pediatric Use**—Safety and effectiveness in children have not been established.

**Use in Elderly Patients**—Healing rates in elderly patients were similar to those in younger age groups as were the rates of adverse events and laboratory test abnormalities. Age alone may not be an important factor in the disposition of nizatidine. Elderly patients may have reduced renal function.

**Adverse Reactions:** Clinical trials of varying durations included almost 5,000 patients. Among the more common adverse events in domestic placebo-controlled trials of over 1,900 nizatidine patients and over 1,300 on placebo, sweating (1% vs 0.2%), urticaria (0.5% vs <0.01%), and somnolence (2.4% vs 1.3%) were significantly more common with nizatidine. It was not possible to determine whether a variety of less common events was due to the drug.

**Hepatic**—Hepatocellular injury (elevated liver enzyme tests or alkaline phosphatase) possibly or probably related to nizatidine occurred in some patients. In some cases, there was marked elevation (>500 IU/L) in SGOT or SGPT and, in a single instance, SGPT was >2,000 IU/L. The incidence of elevated liver enzymes overall and elevations of up to three times the upper limit of normal, however, did not significantly differ from that in placebo patients. Hepatitis and jaundice have been reported. All abnormalities were reversible after discontinuation of Axid.

**Cardiovascular**—In clinical pharmacology studies, short episodes of asymptomatic ventricular tachycardia occurred in two individuals administered Axid and in three untreated subjects.

**CNS**—Rare cases of reversible mental confusion have been reported.

**Endocrine**—Clinical pharmacology studies and controlled clinical trials showed no evidence of antiandrogenic activity due to nizatidine. Impotence and decreased libido were reported with equal frequency by patients on nizatidine and those on placebo. Gynecomastia has been reported rarely.

**Hematologic**—Fatal thrombocytopenia was reported in a patient treated with nizatidine and another H<sub>2</sub>-receptor antagonist. This patient had previously experienced thrombocytopenia while taking other drugs. Rare cases of thrombocytopenic purpura have been reported.

**Integumental**—Sweating and urticaria were reported significantly more frequently in nizatidine- than in placebo-treated patients. Rash and exfoliative dermatitis were also reported.

**Hypersensitivity**—As with other H<sub>2</sub>-receptor antagonists, rare cases of anaphylaxis following nizatidine administration have been reported. Because cross-sensitivity among this class has been observed, H<sub>2</sub>-receptor antagonists should not be administered to those with a history of type sensitivity to these agents. Rare episodes of hypersensitivity reaction (eg, bronchospasm, laryngeal edema, rash, and eosinophilia) have been reported.

**Other**—Hyperuricemia unassociated with gout or nephrolithiasis was reported. Eosinophilia, fever, and nausea related to nizatidine have been reported.

**Overdosage:** Overdoses of Axid have been reported rarely. If overdosage occurs, activated charcoal, emesis, or lavage should be considered along with clinical monitoring and supportive therapy. Renal dialysis for 6 to 12 hours increased plasma clearance by approximately 84%.

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Yet consider, one three-ounce serving of lean sirloin contains 2.8 mg of iron, about forty to sixty percent of which is heme iron, the most bioavailable form. In addition, the presence of beef or other meats in a meal increases the bioavailability of nonheme iron from foods such as vegetables and grains.

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Start with "The Skinniest Six" shown below. None is more than 180 calories per three-ounce cooked, trimmed serving. All are easy to specify at the meat counter.

These six cuts also simplify portion control. Four ounces uncooked equals about three ounces cooked. Grilling, broiling and roasting add no extra fat in cooking. And the taste of beef makes it easy to dispense with fat-laden sauces.

Carefully chosen, prepared and served, "The Skinniest Six" provide an impressive list of essential nutrients for under 180 calories per three-ounce serving.

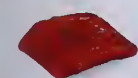
And as part of a specific plan to increase dietary iron, in a balanced diet beef can be one of the best-tasting recommendations you'll ever make.



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## "The Skinniest Six"\*



**Eye of Round**

1.65 mg iron  
155 calories  
5.5 g total fat  
(2.1 g saturated fat)  
59 mg cholesterol



**Round Tip**

2.50 mg iron  
162 calories  
6.4 g total fat  
(2.3 g saturated fat)  
69 mg cholesterol



**Top Loin**

2.10 mg iron  
172 calories  
7.6 g total fat  
(3.0 g saturated fat)  
65 mg cholesterol



**Top Round**

2.45 mg iron  
162 calories  
5.3 g total fat  
(1.8 g saturated fat)  
72 mg cholesterol



**Sirloin**

2.85 mg iron  
177 calories  
7.4 g total fat  
(3.0 g saturated fat)  
76 mg cholesterol



**Tenderloin**

3.05 mg iron  
174 calories  
7.9 g total fat  
(3.1 g saturated fat)  
72 mg cholesterol

*Uncooked whole cuts are shown for purpose of identification.*

## Composite of cooked retail cuts of beef\*

Protein	25.9 g
Iron	2.7 mg
Zinc	6.0 mg
Vitamin B-12	2.28 mcg
Thiamin	.08 mg
Niacin	3.6 mg
Sodium	55 mg
Total Fat	8.7 g
(Saturated Fat)	(3.4 g)
Cholesterol	76 mg
Calories	189

<sup>1</sup> United States Department of Agriculture, "Nationwide Food Consumption Survey, Continuing Survey of Food Intakes by Individuals. (NFCS, CSFII)" Report No. 86-1. \*Nutrients in 3 oz. trimmed and cooked. USDA Handbook 8-13, Rev 1986.

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## **Resolved: America Deserves Better . . .**

The decade of the nineties will find United States health care distressed and afflicted and disintegrating. Technological medical advances still continue, but care-giving has been shackled by a maze of government regulations. Patients are now more worried about care availability than they are about disease. Medical student recruitment is at a historical low. Health administration overhead is so inflated by paper-shuffling that industrialists rebel and demand a new system. The general outcry has fluxed to a discordant roar of protest at the incongruity of the system.

Prudence calls for the present uproar to evolve into a reasonable national debate to solve America's health care problems. Toward that end, the American Medical Association recently proposed "Health Access America," a series of statements and proposed solutions to be discussed and implemented by various factions in the United States. The proposal features sixteen elements, and every element touches a sore point in the system. Many of the AMA statements are sugarcoated, and some propose "reform" that must be carried out by factions not now interested in reform. One element proposes tax law changes, and others would require Congress to express a whole new philosophy of governance. Some proposals require broad national actions, and others need specific local reactions.

The AMA debate challenge of "Health Access America" is ambitious, but timely. A long list of self-interested cohorts must be transformed en route to a comprehensive and fair resolution of all sixteen issues. These current conflicts must be resolved if a reasonable health care system is to survive.

Let us begin the debate.

Despite the enormous difficulty of some of the issues, despite the possible rancor of the upcoming debate, we physicians must debate these issues in the belief that the health care delivery system we had a generation ago was superior to what we have now. And the forthcoming debate, if we debate well, will

lead us out of the socialistic quagmire where we now find ourselves.

Socialism has been proven inferior to free market services everywhere. And yet, here in the US, many of the present problems of medicine result from the inadvertent socialism our unthinking legislators have mandated. The AMA "Health Access America" is a sixteen-plank platform on which we physicians can stand to point the way out of the collectivist wilderness.

Our Oklahoma problems should be especially studied by our Oklahoma physicians and the Okla-

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homa State Medical Association as our topical contribution to the debate. The return of the patient to the center of the payment decision should be one of our principal goals. When the patient has once again been made the Chancellor of the Exchequer and can decide who will be paid how much for what service, then will sanity return to the medical marketplace. Then will socialism and bureaucracy diminish. The patient who is a free agent, whether subsidized by government, indemnified by insurance or paying personally, and who can make a truly free market contract for medical care is the most rational and efficient health care purchaser in the world.

There are many who assert that patients are too confused or uninformed to know how to buy medical care. But they are wrong, and outrageously elitist, and some are closet socialists. While some individuals may make errors in any purchase, patients as a whole know far better the worth of medical care than does any committee of physicians or insurance ac-

tuaries. In the aggregate, patients spending personal funds for medical care will establish a fair and equitable fee scale. The current morbid aberrations in fee scales result from political manipulation of fees for third-party economic goals. Insurance contracts, labor union pressures, and government bureaus have preempted and crippled the free market. Free patients spending their own funds for medical care would eliminate these inequities.

The medical profession should encourage debate and action on "Health Access America." As a society, we must abandon socialism and again develop a free market medical system where altruism will provide access.

*Ray V. McIntyre, M.D.*

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## Reflections on Organizations

The annual meeting of our association last month was the occasion for substantial pride in Oklahoma physicians, tinged, perhaps, by a moment or two of disappointment.

What the House accomplished was significant — a commitment to the concept that all of us should be on an equal footing in dealing with Medicare and a commitment to seek an end to the vast regional disparities in the United States in physician reimbursement. As one moves from either coast to the center of our nation the inequities multiply!

We welcomed the commitment of the American Medical Association to insist in Congress for a national floor on Medicare payments. If successful, this assures that Oklahoma will not drop to the bottom of the states and territories when the resource based relative value scale conversion occurs.

We became the first state association to endorse the AMA's Health Access America plan for coping with access to and payment for medical and hospital service. We took laudable actions to improve perinatal care, work toward a more healthful environment, encourage young physicians and students to participate in organized medicine, and improve our relationships with the nursing profession.

With a strong two-thirds vote, the House also decided not to question the need to stay united in American medicine in the clearly difficult years ahead.

These were actions of a group of men and women dedicated to patients and our profession. They were taken after long discussion and heady debate, and we as individuals should thank our delegates who took the time from their practices and families to represent us.

I mentioned a moment or two of disappointment, and it, too, was there. In the long and passionate discussion of unity in organized medicine it became clear that we are not all equally knowledgeable



about either our state or national associations. Your Board and your officers will assume a larger role in communications with you, if you will have us. Sara DePersio, MD, our new Board chair, will bring to the Board the concept of multiple locations for Board meetings and open invitations to all members to come and observe its deliberations. As your president I hope each component county society will ask the trustee from that county's district to attend meetings of the county society. It was a disappointment to learn that many counties have never asked their trustee to share with them their meetings and their thoughts.

Equally disappointing was the lack of appreciation and in some cases blatant misinformation about what the AMA does for each of us. This is a more difficult problem to address, in part because the scope of the AMA is so broad and, in part, because meaningful communication requires the attention of at least two parties.

Each week we all receive the single most valuable source of information about American medicine, *AM News*. It covers Washington and the states. It also covers your American Medical Association. In the weeks ahead it will detail every item of business to come before the AMA House, and every action taken by the House. Read. Read thoroughly and compulsively. This is a wonderful introduction to the organization upon which our futures depend.

With your membership certificate each year, you receive a condensed booklet about your AMA. Read it. Study it. It is a record of great accomplishment.

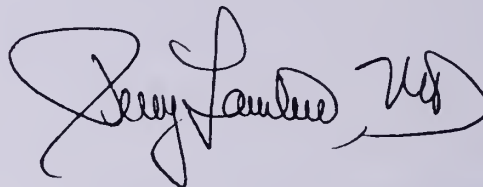
Come to a meeting! The annual meeting of the AMA in June in Chicago is open to you, and you will learn much. Become a member of the Hospital Medical Staff Section and enter into its debates. Come to the reference committees and testify on any topic of concern to you. You will find the AMA House the most open and thoughtful deliberative body in America.

Finally, communicate with your AMA delegates. They represent you and can carry your voice forcefully to the nation. More importantly, invite them to

your county meetings! Much more is being done in our behalf than this entire JOURNAL could encompass. Your delegates want to share information about the AMA and, simultaneously, learn your concerns and how they can best be met.

Membership is a privilege. It is also a responsibility. Let us each pledge this year to free and open com-

munication, and to a resolve to work together in the best interests of our patients and our profession.



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# Thrombosis in Human Pancreatic Transplantation Associated with Elevated Cyclosporine Levels and Possible Protection by Antihypertensive Agents

William C. Jennings, MD; John Smith, MD; Robert J. Corry, MD

Acute thrombosis in human pancreatic transplantation (HPT) remains a serious problem occurring in 10% to 30% of many reported series. Thrombosis may result from a number of causes including technical error, acute rejection, or low-flow states secondary to conditions within the host or in the transplanted organ.

Evidence accumulates suggesting cyclosporine (CSA) acts as a potent vasoconstricting agent and that antihypertensive medications such as calcium channel blocking agents may offer protection from this effect. We have reviewed 68 consecutive human pancreatic transplants at the University of Iowa, specifically evaluating CSA levels, and the use or nonuse of antihypertensive medications. We found CSA levels in patients with transplant thrombosis to be elevated above the mean in 80% of patients with levels available 24 hours prior to thrombosis. Fifty percent of these (CSA) levels were well above one standard deviation. In addition, those patients receiving routine antihypertensive medication (most commonly calcium channel blocking agents) were statistically less likely to have thrombosis of the pancreatic transplant. We suggest that elevated levels of CSA may play at least a partial role in thrombosis of HPT and antihypertensive agents may offer protection from this effect.

Cyclosporine (CSA) has played a major role in the clinical success of human pancreatic transplantation (HPT). Although not well understood, CSA

nephrotoxicity has been documented in human liver,<sup>1</sup> heart,<sup>2</sup> and kidney transplant recipients. Elevated levels of CSA in animal models have been shown to cause decreased renal blood flow secondary to increasing renal vascular resistance.<sup>3</sup> Drugs such as calcium channel blocking agents may prevent this effect on blood flow and may be beneficial in avoiding the toxic effects of CSA.<sup>4</sup> CSA-induced pancreatic dysfunction was suggested in a recent series of renal transplant patients<sup>5</sup> and may also occur in HPT.

Acute thrombosis in HPT remains a serious problem and is undoubtedly a multifactorial event. We postulate that those patients with elevated serum levels of CSA may have increased pancreatic vascular resistance and therefore lower blood flow and a higher rate of pancreatic graft thrombosis. Additionally, we have reviewed the effect of antihypertensive agents that may have coincidentally played a protective role in preventing intense vascular constriction, thereby avoiding thrombosis.

## Methods and Materials

Pancreatic transplantation was performed in 68 patients between March 1984 and March 1988 at the University of Iowa. Recipients of pancreatic transplantations ranged in age from 24 to 48 years of age. Donors ranged in age from 5 to 58. Three patients were excluded from this study. One had an intraoperative myocardial infarction and expired immediately. The second had a technically unsuccessful graft, and the organ was immediately removed. The third patient excluded had a successful transplantation but essentially received no cyclosporine during

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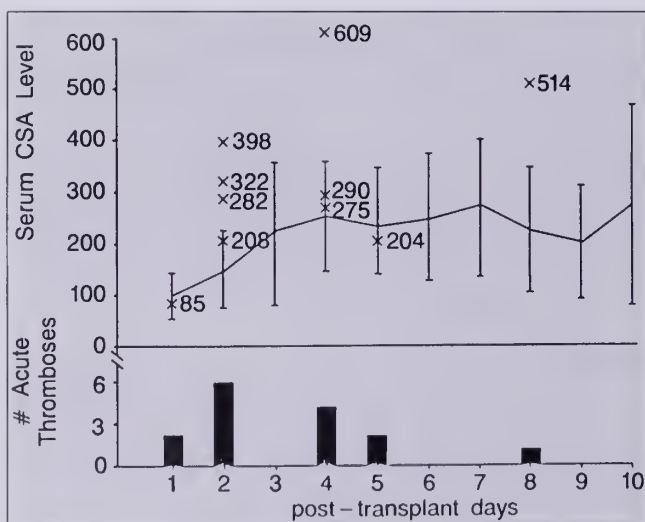


the period study. Immunosuppression and technical procedures have been described previously.<sup>6</sup> Intravenous CSA was given all patients until they were able to take oral medications.

## Results

Pancreatic graft thrombosis was seen in the first 8 postoperative days in this series of patients. It occurred in 9 of the first 34 patients (26.5%) and in 6 of the last 34 patients (17.6%). Cyclosporine levels were obtained on a daily basis and dosage adjustments made accordingly. Cyclosporine levels for all patients are shown in Figure 1. The line graph displays (with one standard deviation) mean daily trough CSA levels in all grafts. Individual trough levels obtained in the 24 hours prior to thrombosis were available in 10 of 15 patients who had acute thrombosis and are displayed individually. Eight of these 10 values were above the mean and 5 of the 10 values were well above one standard deviation.

Control of hypertension was on an individualized basis. Almost all of these patients received multiple drugs as shown in Table 1. Patients were judged to have been treated if they received one or more of these medications at least twice daily during the 8 days after transplantation. These criteria were established prior to evaluating the data and an independent evaluator assigned each case to treated or un-



**Figure 1.** Line graph demonstrates mean serum trough CSA levels in all pancreatic transplant recipients and one standard deviation. X=individual trough CSA levels prior to acute thrombotic episodes. These were available in 10 patients. They were elevated above the mean in 8, and above one standard deviation in 5 patients.

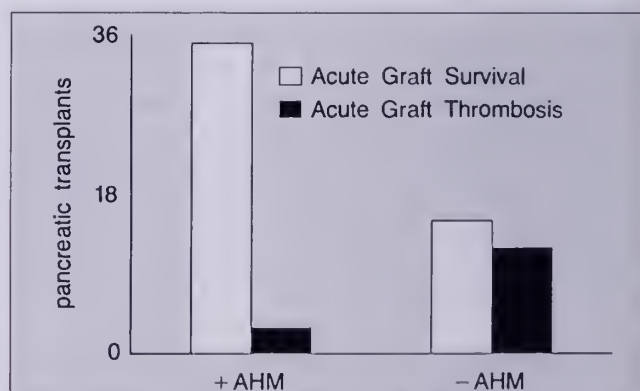
**Table 1. Frequency of Use of Antihypertensive Agents in Pancreatic Transplant Recipients**

Calcium channel blocking agents	38
Nifedipine HCl	28
Verapamil HCl	6
Diltiazem HCl	4
Hydralazine HCl	29
Clonidine HCl	19
Minoxidil	7
Methyldopa	3
Metoprolol tartrate	3
Captopril	1
Prazosin	1

Six patients received four drugs, ten patients received three drugs, and nineteen patients received two drugs.

treated categories. Of the 65 patients studied, 38 (58.5%) were classified as "treated" for hypertension. Patients receiving these medications were significantly less likely ( $P<0.01$ ) to have an acute thrombotic event when compared to patients not receiving antihypertensive medications (Fig 2). No patients receiving multiple agents suffered a thrombosis.

These data demonstrate that pancreatic recipients suffering acute thrombosis frequently had elevated circulating levels of cyclosporine. Additionally, those patients receiving antihypertensive medications that would theoretically offer protection against acute vasospasm were significantly less likely to suffer thrombosis of their pancreatic transplant.



**Figure 2.** Patients receiving antihypertensive medications (most frequently calcium channel blocking agents) were significantly less likely ( $P<0.01$ ) to suffer acute graft thrombosis. Thrombosis was not seen in any patient receiving multiple agents.

## Discussion

Reversible pancreatic dysfunction caused by CSA has been demonstrated in the dog<sup>7,8</sup> and in the transplanted pancreas in the rat.<sup>9</sup> Unexpected emergence of diabetes in solid organ transplant recipients treated with cyclosporine<sup>10</sup> suggests some effect may be present in humans as well. The exact mechanism of cyclosporine toxicity remains uncertain although mounting evidence suggests abnormalities in prostacyclin/thromboxane metabolism.<sup>11,12,13,14</sup> Recent animal studies suggest benefit by thromboxane inhibition from dietary fish oil or the use of prostaglandin E analog.<sup>15,16</sup> The toxic effect may be mediated through a profound arteriolar vasoconstriction and has been studied most fully in the kidney.<sup>3,17</sup> Other experimental work has been done suggesting protection may be afforded from the unwanted effects of cyclosporine by use of calcium channel blocking agents.<sup>4,18,19</sup> Clinical studies have further substantiated this data suggesting benefit in renal transplant patients.<sup>20,21</sup>

We have demonstrated in the rat pancreas a profound increase in vascular resistance in response to high doses of cyclosporine. This corresponded with decreasing pancreatic blood flow and was reversed and prevented by administration of verapamil.<sup>22</sup> We speculate that a similar effect by cyclosporine may exist in HPT, and thrombosis may be the extreme end point of this effect. The data in this report suggest that at least in some patients, elevated serum levels of cyclosporine may be associated with acute thrombosis in HPT and additionally that antihypertensive medications such as calcium channel blocking agents offer significant protection in the immediate post-operative period. □

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## Coming next month

Next month's JOURNAL will feature the complete proceedings of the OSMa Annual Meeting, held May 3-5 in Oklahoma City.





by Richard Green  
photographs by Jim Thomas

**T**he patient and surgeon had been in the operating room for almost two hours and the surgery still hadn't begun. That was normal with brain surgery, though. A neurosurgeon's preparation for getting to the location of the problem is extremely meticulous.

Every visible and hidden piece of brain tissue has a function. There are no unimportant parts of the brain. Neurosurgeons know that the old quip about one slip of the scalpel wiping out 15 years of piano lessons is no joke.

The patient's signs, symptoms, and a battery of neurological testing suggested a tumor of the left frontal lobe. As the mass had expanded, pressure on the brain

increased, producing intense headaches and abnormal vision. By using an ophthalmoscope, the pressure on the optic nerve could be calculated from 0 (normal) to 10. The patient had a papilledema level of 8.

An X-ray showed a displacement or distortion in a ventricle usually associated with a tumor. The ventriculogram, which had taken about an hour to perform, involved boring small holes in the skull and injecting air into the ventricles, creating a better contrast medium for X-rays.

With the tumor's general location pretty well in mind, Jess Herrmann finally began making the incision into the patient's scalp. About 45 minutes passed be-



# Leaders in Medicine:

## Jess D. Herrmann, MD

Begun in 1981, the Leaders in Medicine series recognizes some of Oklahoma's most outstanding physicians and the contributions they have made to their communities and profession. This is the fifteenth article in the series.

fore the "flap was turned," a piece of scalp about the size of a man's fist peeled out of the way.

This was only Dr Herrmann's second brain-tumor surgery in the last four years. While he was in the Army from 1942 until December 1945, the neurosurgeries he performed in tents on islands in the Pacific involved gunshot or shrapnel wounds. As he operated now, in early 1946, he wore a remnant from those times: his old high-top GI shoes. He said they were comfortable, and comfort was a premium to a man who frequently spent six straight hours on his feet.

Tall — 6 feet 2 — and thin (some would even say gaunt), Herrmann is an imposing sight in the operat-

ing room. Though his appearance is rough-hewn and weatherbeaten (the medical students secretly call him "old saddlebags"), he has a delightful personality and no one likes to laugh more than he does.

But not now. Neurosurgeons are nearly obsessed by potential disaster. Herrmann's scrub nurse, Jessie Jenkins, gives him the hand drill for boring holes through the skull. He drills three holes with the brace and bit and uses a perforator burr to refine the holes to about the size of an index finger. As he turns the handle of the drill, shavings accumulate on the drape. Using special techniques and instruments, he saws between the holes to create a large opening and bevels the skull bone so that the

flap can be refitted snugly.

After the dura, the brain's protective membrane, is retracted, the brain is exposed. But there is no time to sightsee. Already the procedures have caused the brain to begin swelling.

The brain, pink and gray and covered by a web of small blood vessels, beats steadily. Herrmann works deliberately if not speedily and with total concentration. He often describes out loud what he is seeing. Visible now is part of the tumor, embedded within a fold of the frontal lobe. Even with the air studies and more precise neurological tests, neurosurgeons in 1946 commonly open the skull and still can't find the problem's source. Or they find it, but the location is

such that they can't correct the problem: some tumors infiltrate the minute crevasses of the brain; unseen blood vessels that are accidentally cut can become deadly cerebral hemorrhages. The mortality rate for brain surgeries ranges between 30 and 50 percent.

This tumor is purplish and obviously alien. He snips off a piece and it is taken to pathology. Aside from location, tumor type also is crucial. Based on the path report, Herrmann will know shortly if the patient has much if any chance to survive. Meanwhile, he begins "taking" part of the tumor with an instrument called a Bovie that cuts and cauterizes simultaneously. He decides that he will not need a consultation with his partner, Dr Harry Wilkins, who is still the only other neurosurgeon in Oklahoma and who taught him virtually everything he knows about neurosurgery.

Herrmann leans closer; the light illuminating the brain comes from an auto headlight bulb which is attached to the strap around his head. Even so, he can't see well deep inside the brain and doesn't know if he has gotten all of the tumor. Time will tell.

In recovery, the patient's face has swollen to the size of a football and both eyes are swollen shut and blackened. One of Herrmann's colleagues in New York once told a patient that the effect of such a brain operation would be approximately that of the explosion of a .45 caliber bullet against the head.

Herrmann wouldn't like that analogy. It is too crude for one who respects the specialty — and the 200 or so in the US who practice it — as much as he does. And though a lot of his patients have died since he began operating in 1936, a lot of them have recovered. As he tells them before surgery, "We don't

know your chances until we do the operation. But we do know your chances without it."

\* \* \*



**O**n a cool, sunny February afternoon in 1990, 23 years after performing his last neurosurgical procedure, Jess Herrmann sits staring out his large living room window as though it were a monitor for looking backward.

For the last hour, he has been reflecting about his career in the late forties and his memory "isn't what it used to be." He is happy to have a break.

At 83, he lives alone. Mary Jo, his wife of 55 years, died two springs ago. During her last few months, she was in a nursing home and often didn't recognize him and their daughters or grandchildren. He lives in a spacious

house he had built in the mid-sixties from the pine forests that surround the 90 acres he cleared and brushhogged himself. The land, tucked in a plain between mountain ridges and one of Lake Ouachita's eastern tributaries, is about five miles from the nearest town, Mountain Pine, Arkansas. Turning off the last paved road, you are within a mile of the house. But if it has been raining, it is a daunting mile because the road will be a muddy, rocky path, crisscrossed at intervals by three swift-moving streams. Emerging from the last of these obstacles, a sign invites you to KEEP OUT. Only invited guests, deer hunters, or the hopelessly lost make it to this point.

Just beyond a low hill and bend in the road sit three houses spaced several hundred yards apart, each surrounded by groves of pine and a mixture of hardwoods. Jess Herrmann's is at the end of the road.

His view from the window would make a landscape painter's day, especially in another two weeks when the fruit trees, dogwoods, and redbuds bloom and the springtime haze softens the sun's reflection from the pond in the distance. Beyond lies a ridge of blue mountains.

He puffs a cigar and says, "It wasn't that many years ago that I used to climb up in those mountains — they're really just hills. And I'd hike to the natural spring that is the source of those streams that run across the road yonder."

He smiles and laughs almost inaudibly. Laughter from Dr Herrmann has multiple purposes. Though it comes with amusement, it also is used as punctuation or to set up irony, such as now:

"You know, most of my friends back in Oklahoma City can't un-



derstand why I continue to live here. They say, 'Jess, you're not as young as you used to be, why don't you move back to the City into one of those nice independent living things.' And the answer," he says, gesturing outside, "is all around 'em."

He leads the way outside, through the long glassed-in utility room containing piles of feed-'n-seed baseball caps. Walking slightly stooped over and favoring his left leg, he looks his age. His hands are the exception; the fingers are long, lovely, and show no signs of illness. They should belong to a concert pianist or a surgeon.

"Jess's father also had a great pair of hands," says Dr Alvin Rix, who became a partner of Drs Herrmann and Wilkins after the war

and remains one of Herrmann's best friends. "He was not only a carpenter, he was a true craftsman. His specialty was spiral stairways and handrails."

Herrmann wants to show off his work room, which is located in a building behind the house. Many of the power and hand tools belonged to his father. Herrmann hasn't used them in recent years, but did enjoy doing carpentry after he quit doing surgery. And when he was a youngster, he worked for his father. "He wanted me to get an education," he says, "but he also wanted me to know a trade. He felt like I should be able to do something with my hands," Herrmann says, laughing, "if I ever needed to."

With good reason. Though John Herrmann was a craftsman, he

also worked periodically as a fry cook to help make ends meet. After Jess was born to John and his young wife, Lena, on January 11, 1907, the family moved from Dennison to Amarillo, Texas. When Jess was 4, his sister, Doris, was born and the family was complete. They moved to Oklahoma City before John found the right house in the right place, Britton, Okla.

In 1916, Britton consisted of only a few buildings, and unlike today, it was separate and independent from its neighbor to the south, Oklahoma City. It was connected to it, however, by a bustling street-car system called the inter-urban, which ran south to Norman. There were few automobiles and very few paved roads. Once, John inadvertently left his toolbox





at a job in Packingtown and had to borrow a horse-drawn wagon from a neighbor to retrieve it. Jess recalls that the round trip took the better part of a day.

violin lessons and then "picked up" five or six other instruments that he played in the school band, depending upon which was needed. During his last year of high school,

until after Herrmann completed his internship in Vancouver, British Columbia.

Wilkins had graduated from OU in 1927 and trained under internationally famed neurosurgeon Ernest Sachs at Washington University in St. Louis. His return to practice in Oklahoma was a godsend for the state. Before then, Oklahomans needing neurosurgery to save their lives had to go to Kansas City, Mo, or Memphis, Tenn. Some general surgeons would do emergency craniotomies, but they had neither the expertise nor the experience to help many patients.

Neurosurgery as a surgical specialty was still new in 1931. The father of neurosurgery, Harvey Cushing of Johns Hopkins University, was still alive — one of fewer than 100 neurosurgeons in the nation.

Herrmann's return to Oklahoma City in 1932 came about when Canada retaliated over a new and unfavorable US immigration policy. His acceptance to the medical residency program in Vancouver was rescinded, and it was too late to get another residency position somewhere else. "I didn't have a pot," is Herrmann's descriptive and abbreviated way of expressing poverty or coming up short.

Back in Oklahoma City, both of St. Anthony's residency positions were filled: one in medicine and one in surgery. He lucked into an internship slot at St. Anthony Hospital, but since he had already completed an internship, he didn't feel all that lucky. He also didn't feel that he was ready to hang up a shingle. Within a month, however, the medicine resident resigned and Herrmann got his spot.

Herrmann was on the spot in some other ways, too. At that time, a medicine residency encompass-

## Unlike most of his fellow medical students, Herrmann liked the complexity of the nervous system because it was so orderly.

Jess was motivated by his parents to do well in school, but found the classwork unchallenging. "There was no fluff offered, but we also had no labs," says Herrmann. "The teachers were dedicated, but I don't remember ever being particularly inspired."

Like most boys then, Jess had part-time jobs. When he wasn't working for his father at ten cents an hour, he worked in a general store and the post office. Later, he drove a Dr Young to his house calls at night because "the old GP didn't see well after sunset," Herrmann says. "He'd just pull up and honk and if I was home, off we'd go. I didn't have a driver's license but none was needed. He didn't pay much, but sometimes he'd let me help. Once, at a delivery, he asked me to help after the husband had fainted. He wanted to slow down the labor, and my job was to drip ether onto this big cone that I was holding over the woman's face. We delivered her baby on her kitchen table."

By high school, Jess was hoping to be a musical entertainer. "Back in those days, with no TV or radio, families entertained themselves, and with us it was playing music in the evenings." At his father's behest, he had taken several years of

Jess played for money in a musical variety show that made one-night stands.

He wasn't headed for a life of show biz, however, because his father, who hadn't finished grade school, was determined that his children would go to college. Moreover, the Herrmanns had acquired a radio, and when Jess heard what real musicians sounded like, he saw things in a different light.

If he was in a career quandary, it wasn't for long. He enrolled at Oklahoma City University and was captivated by his science courses and labs. After his junior year, he was accepted by the University of Oklahoma medical school, which in 1927 was located in Norman. During his two basic science years, he managed to make good grades and good money as a musician. He also was tenor soloist in the OU Chorus, which participated in national competition at New York City's Carnegie Hall in 1929. To enhance his ability, Jess was sent to a music coach, who helped him improve his breathing and phrasing.

He graduated in 1931, the same year that Oklahoma acquired its first neurosurgeon, Dr Harry Wilkins. But their paths didn't cross

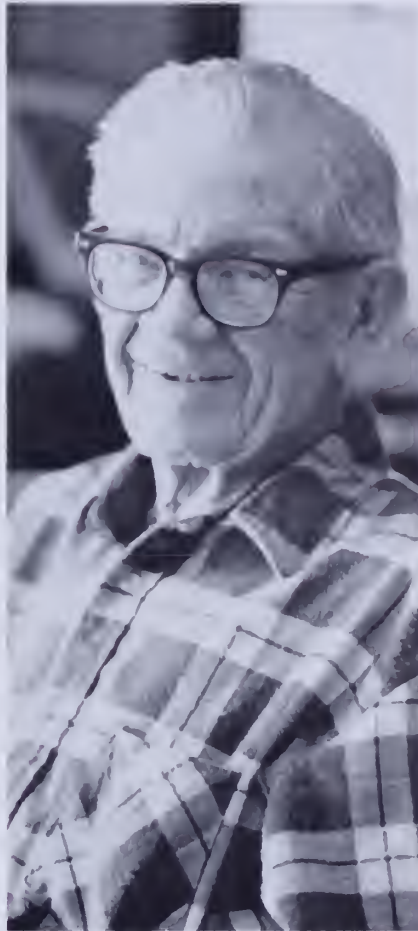
ed everything that wasn't surgery, including some disciplines he didn't care for, particularly OB. On the OB service, there was a young but extraordinarily competent head nurse, Mary Jo Fry, who "showed him the ropes and kept him out of trouble." Impressed by her expertise and savior faire, he asked her out even though hospital rules forbade doctor-nurse dating. They continued to violate that rule for several months.

On one date, the couple, who had been dancing at a night spot near El Reno, was kidnapped in Mary Jo's car by two armed bank robbers. "They needed a car and took us along so we couldn't call the police," Herrmann recalls. "I sat between these guys and Mary Jo was on my lap. Though they were nervous and one had a gun trained on us, Mary Jo held up beautifully."

At about 3 AM, the men ordered the couple out. They were excused on a country road, and fortunately they weren't far from Mary Jo's parents' farm near Chickasha. Later, after the men had robbed another bank and gotten caught, the car was returned intact except for a bullet hole in the rear window. Shortly thereafter, in October 1933, the couple got married. And after Herrmann began his practice, he and Mary Jo started a family. Their first daughter, Margaret, was born in 1937 and their second, Sally, was born in 1940.

\* \* \*

**B**ack in his living room, lighting up a fresh cigar, Jess Herrmann sits amid most of what he uses or needs during the day. His TV remote control, radio, lamp, and ashtray are handy; reading material in piles or in boxes or grocery sacks is within reach of his easy chair. The



same penchant for orderliness that is evident today in his home probably sparked his early interest in neuroanatomy.

Unlike most of his fellow medical students, he liked the complexity of the nervous system because it was so orderly. And ironically, he found the disorder and illogic of neurological diseases challenging and stimulating. During his residency, he wasn't satisfied to learn neurology only by signs and symptoms; he wanted to know the underlying pathology of these bizarre and often devastating diseases and disorders.

One man in Oklahoma City could help him. Harry Wilkins had begun his pioneering neurosurgical practice the year before. He

combined a scholarly interest in neurology with humane care for his patients. And he had the singular skills that enabled him to help a segment of Oklahomans that previously had had no recourse except to suffer and die. Herrmann saw Wilkins as a highly skilled pioneer in a brave new world.

His view of Wilkin's work was almost unique among the students and interns exposed to neurosurgery. They tended to emphasize the downside: spending five or more hours holding retractors and getting fallen arches while the patient died almost as often as not.

Yet, Wilkins and Herrmann had good rapport from the beginning. Herrmann admired the older man's remarkable skills, consideration, and courtly manner. Wilkins appreciated the younger man's interest, even enthusiasm, for what he was doing. Their professional relationship deepened almost imperceptibly and by 1934, when Herrmann completed his medicine residency, Wilkins was happy to become Herrmann's preceptor. This arrangement, in effect, was a residency training program in neurosurgery.

One of the first steps involved Herrmann's spending six months in the lab of the famed University of Chicago neuropathologist Percival Bailey. And though their association was relatively brief, Herrmann still displays Bailey's signed photo in his living room. When Herrmann returned to Oklahoma City, he brought slides of every type of tumor in Dr Bailey's collection, from which both he and Wilkins benefitted.

Not many of their patients, however, enjoyed much immediate benefit: progress in neurosurgery in the thirties was grudging. One "breakthrough" occurred during



Herrmann's training, and Herrmann himself was responsible. It involved a patient who probably had a brain tumor, but no localizing signs were apparent. Then one day Herrmann entered the patient's hospital room and saw him urinating in a wicker wastebasket. Since tumors of the frontal lobe were sometimes associated with changes in personal tidiness, Herrmann announced to Wilkins that he had discovered the tumor's location, as surgery later verified. The "breakthrough" was dubbed "Herrmann's Sign," and took its place, if not in the annals of neurosurgery, at least in the memories of those who love good stories.

By late 1936, when Herrmann had become Wilkins's partner, he was eager to begin doing neurosurgeries himself. Though he had a big ego, he never acted egotistically. He had the self-confidence and courage to cut into peoples' heads and operate on their brains — despite the immense obstacles and difficulty of the task and the high mortality rates.

The workload of both men became grueling over the next six years. They had referrals from throughout Oklahoma and surrounding states. And because many of their patients were too sick to come to them, they functioned as itinerant surgeons, loading up a car with instruments and heading out to places like Tulsa and Amarillo.

Still, Herrmann found time to study for and pass the certification exam of the American Board of Neurological Surgery in 1940. He was among the first small group to be board certified as neurosurgeons. Dr Wilkins wasn't among them. He mistaken-



In the Philippines during WWII, Herrmann (left) served with William W. Rucks, Jr., an internist from Oklahoma City. Below, he starts another day at the Desert Training Center in Needles, Calif.



ly thought he would be grandfathered in by the board, but he passed the exam the following year.

Then World War II intervened. Both men volunteered for OU's 21st Evacuation Hospital unit but state officials wouldn't allow the state to be without a neurosurgeon. Wilkins, as the senior man, was asked to stay.

Jess Herrmann's four-year hitch in the Army during the war was the apotheosis of the Army's unofficial slogan: hurry up and wait. The unit was mobilized the summer of '42 and stopped over to train in Needles, California, en route to support Gen. Patton's tanks in North Africa. "The idea was to train in a climate and terrain similar to where we were headed," recalled Herrmann. "The day we arrived, the temperature was about 115° and we bivouacked in tents by a cemetery, which struck some of us as pretty funny."

Herrmann has a large scrapbook filled with snapshots and clippings from his wartime service. "These are pictures of our

camp near Needles," he says. "You can practically see the heat rising," he adds, chuckling. "Look, there's Bob Howard, and here's one of Jim Taylor . . . Austin Bell . . . Bill Rucks. He died awhile back."

Herrmann produces a yellowed clipping from *Time* magazine about the Desert Training Center. "Boys become men in a pretty short time in a place like this," the copy read. And according to one veteran: "After this (Needles), wherever they go, they'll be happy."

But the 21st didn't go anywhere for a year. Hurry up and wait. Maj. Herrmann treated numerous cases of heat exhaustion and revived his career as a musical entertainer. But he did no surgeries. After the unit finally got its orders



and wound up not in North Africa but the Solomon Islands in the South Pacific, Herrmann filled in as the unit's psychiatrist.

Several months later, the unit hurriedly moved from Guadalcanal to Bougainville, where fierce fighting was continuing, and Herrmann finally began doing neurosurgeries. When the Japanese were attacking, he operated until he almost dropped from exhaustion. He removed shrapnel and bullets from soldiers' brains and after three days his patients were evacuated. There wasn't much feedback. But he got his first small supply of penicillin on Bougainville and "miracles" were accomplished with 5,000 units.

When his appendix flared up on that island, he found himself on the other end of the knife. And only a few days later, at the request of Floyd Newman, an ENT from Oklahoma, Herrmann spent several hours removing a bullet from the brain of a lucky young soldier. Since he was too weak to stand, someone rigged up a stool, from which Herrmann worked. Herrmann's CO was so impressed that he arranged for him to receive the Bronze Star. "I didn't feel like a hero, but I sure as hell appreciated the five points that went with it," Herrmann says. Points were associated with early discharges.

After Gen. Douglas ("I shall return") MacArthur made good on his promise, the 21st followed him up the Lingayen Gulf of Luzon island. Herrmann's new operatory was in San Carlos, in a church erected in 1587. Later, the 21st moved to Manila to train for the invasion of Japan, where it was estimated that up to one million American casualties would be sustained. The horror of that prospect vanished with the atomic blasts

over Hiroshima and Nagasaki, and Lt. Col. Herrmann was on his way home.

\* \* \*

**B**efore the war, Wilkins and Herrmann had established a dynamic patient referral network, which was not reduced by half when half of the partnership joined the Army. During the war years, Wilkins often was trapped in a destructive dilemma. Already working too many hours and probably doing too many neurosurgeries, Wilkins would get a call from a physician saying, in effect, you are my patient's only hope. Four years of such pressure took a physical and emotional toll that wasn't entirely healed after Jess's return.

In 1946, the American Board of Neurological Surgery asked the partners to set up a residency program at OU. Dr A.C. Lisle, Jr., was the first resident. Still practicing in Oklahoma City, Lisle recalls meeting both men more than 40 years ago. "Jess said he'd never had a resident before, and we'd have to feel our way along. But we hit it off immediately.

"Both Jess and Harry were excellent teachers in their own ways: Harry was a perfectionist and neurosurgery was his life, yet he didn't have a mean bone in his body. Jess's criticism always was constructive, and he was a superb model for the art of effective communication.

"They were about equal in their surgical expertise and were referred to as though they were one, Herrmann-Wilkins or Wilkins-Herrmann. I grew to love each man very much."

Alvin Rix, one of their first residents, recalls that in 1952, famed Rochester, New York, neurosur-

geon William P. VanWagenen said that the best neurosurgery he had seen in his travels across America was in Oklahoma City. And Rix notes that by 1955-56, the neurological surgery board said more certified neurosurgeons had been exposed to OU's training program than any other one medical school in the nation.

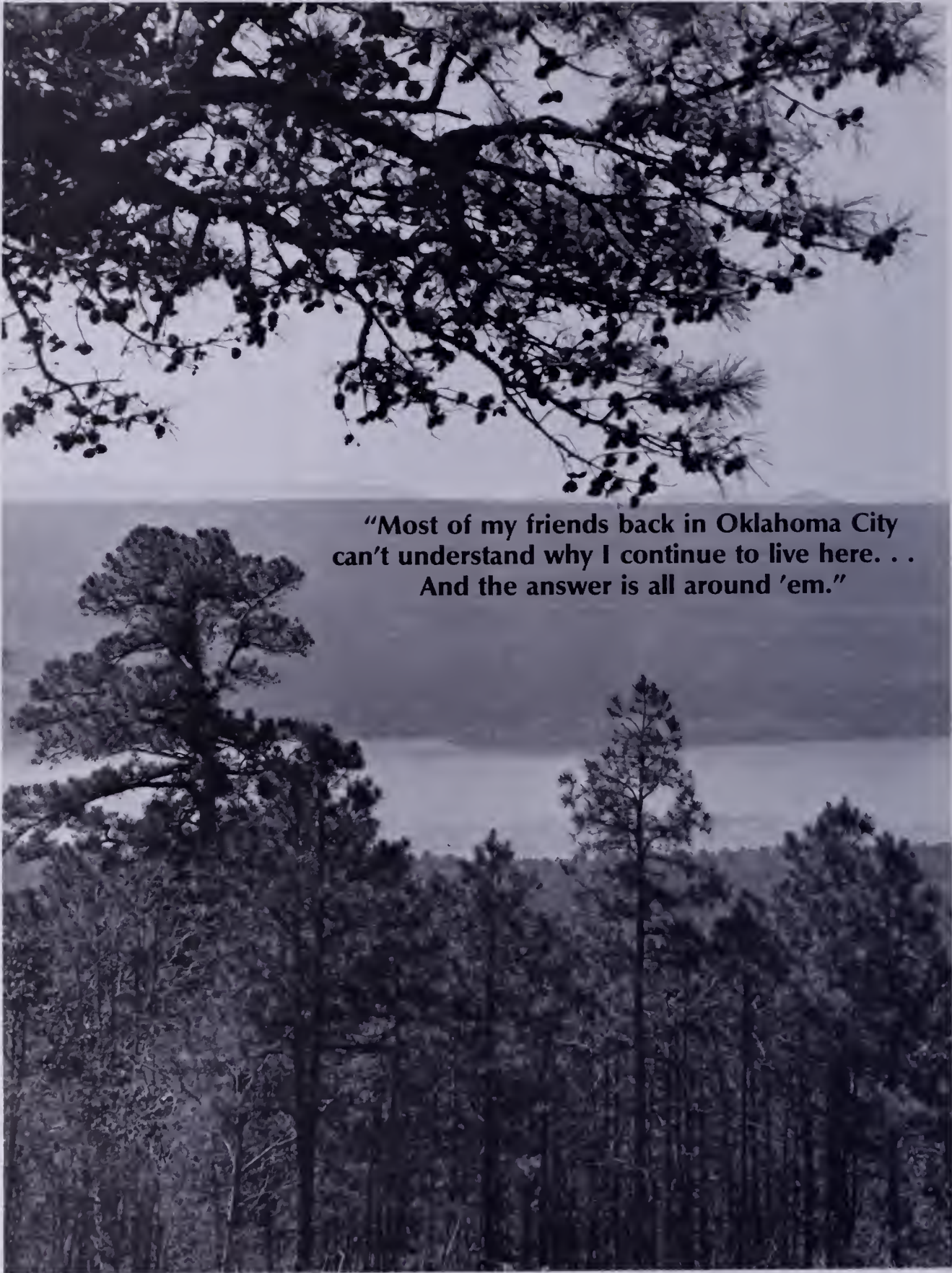
After finishing his residency, Rix joined his mentors' practice. "About one-third of our work was charity because few people had insurance. And our charges were less than most places. I remember Jess saying it was wrong to work an undue hardship on patients."

"I charged \$250," Herrmann says. "I'd give 'em only one bill and tell 'em to pay when you've got it. I remember one patient sent the money several years after I had retired."

After a few years, Alvin Rix eased out of neurosurgery and into neurology. Herrmann says that Alvin "wasn't bloodthirsty enough. But he always worked like a horse and remained our partner."

Though there were more neurosurgeons in Oklahoma by the mid-fifties, Herrmann's workload and responsibilities had increased because Wilkins had developed a recurrent depressive syndrome. Says Herrmann: "I'd get home in the evening, have a highball with Mary Jo before dinner, and talk to our girls. And then often as not I'd have to go over to St. Anthony's or University (hospitals) to check on a patient."

**T**en years later, Herrmann, then 59, felt like he was wearing out. "I was fatigued all the time. You get in this damn thing and eventually realize you're not running the show — you're a prisoner of your referrals.



**"Most of my friends back in Oklahoma City  
can't understand why I continue to live here. . .  
And the answer is all around 'em."**



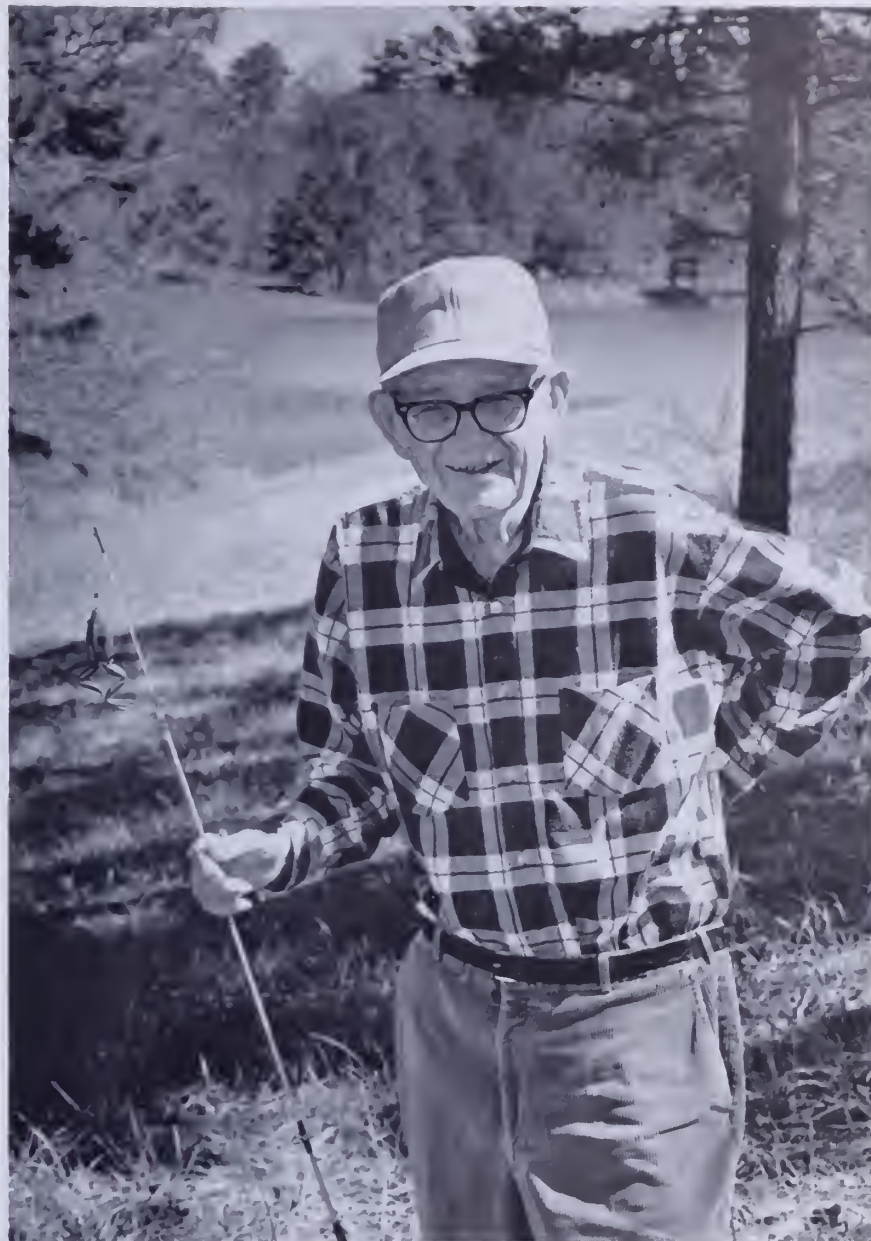
Finally, I saw there was no way to cut down; you're either in all the way or out. So I told Harry I was retiring and was very happy to hear him say that he was gonna get out, too.

"So Mary Jo and I moved out here," Herrmann says, gesturing again toward his big living room window. "And it was like getting to know one another all over again. As a country girl, my wife loved living here. We were busier than cranberry merchants, putting in a big garden every year, improving the land, and I fished a lot; this is a fisherman's paradise. I got into the cattle business, but it was never a paying proposition. To tell the truth, I didn't know a damn thing about it." Herrmann leans closer and says confidentially, "I got into the business because I thought the land looked better with cattle on it."

\* \* \*

**A**t noon, a lady who cooks for Herrmann arrives and they sit talking and smoking. She fries some bass that her husband caught and prepares vegetables and corn dodgers. While they dine, she coaxes him to eat all his food, saying he is getting too skinny. He says he doesn't like to overdo because his hiatal hernia has been bothering him lately.

Though he moves about slowly and is somewhat frail, he did survive lung cancer surgery (not the kind associated with smoking, says the life-long smoker) a few years ago. He communicates with at least one of his two neighbors every day, and they trade off going into Mountain Pine every week-day to get the mail. He also gets phone calls and visits from many of his former colleagues and residents and his daughters and their



families, including seven grandchildren and four great grandchildren.

He says he is content. Not that he wouldn't like to be able to hike up into those hills again to the source of the streams that cross his land. But he has no important regrets.

Once after he had been retired a few years, he was invited back to OU to give some sort of lecture to the neurosurgery residents. "One of them asked what I missed

most," Herrmann says, starting to grin. "Well, sir, I told 'em that ever since my wife and I had taken up homesteading out in the pine forest, what I missed most about neurosurgery was my Thursday afternoon off." □

*Richard Green is an experienced medical writer and former editor of Vital Signs, magazine of the University of Oklahoma Health Sciences Center (OUHSC) and OU College of Medicine Alumni Association.*

*Jim Thomas is a staff photographer at OUHSC. His work has been featured in a number of OUHSC publications.*



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*Endowed by Stanton L. Young*

## Oklahoma City surgery professor receives Master Teacher Award

M. Alex Jacocks, MD, associate professor of surgery at the University of Oklahoma Health Sciences Center in Oklahoma City, is the recipient of the Seventh Annual Stanton L. Young Master Teacher Award.

The award was presented by Mr and Mrs Stanton L. Young during ceremonies April 12 at the Oklahoma City Golf and Country Club. Hosting the event were OU president Dr Richard Van Horn, OU Health Sciences Center provost Dr Clayton Rich, and the OU Board of Regents.

The award was established in 1983 by Young, an Oklahoma City businessman. It is presented annually to a faculty member in the OU College of Medicine and is one of the largest in the nation for medical teaching excellence.

Dr Jacocks received his medical degree from OU

in 1977, after earning a BS degree from Duke University in 1972. He joined the OU College of Medicine faculty in 1982 as an assistant professor and was named associate professor in 1988.

Since 1982 he also has served as director of the Non-Invasive Peripheral Vascular Lab connected with Oklahoma Memorial Hospital and the Veterans Administration Medical Center; chief of adolescent surgery at Children's Hospital of Oklahoma; clerkship director for student education in the OU Department of Surgery; and consulting surgeon with Presbyterian Hospital.

Dr Jacocks received the Solomon Papper Humane Scholarship Award from the OU College of Medicine in 1977 and was named Outstanding Surgical Student by the Oklahoma City Surgical Society, also in 1977. J

*Five OSMA physicians honored*

## OU College of Medicine selects winners of Aesculapian Awards

Five OSMA members associated with the University of Oklahoma Health Sciences Center recently were named winners of Aesculapian Awards during ceremonies at the Quail Creek Golf and Country Club in Oklahoma City.

The awards are presented by students in the OU College of Medicine and honor academicians for outstanding contribution to and excellence in teaching for the past year.

Award winners from Oklahoma City were Jerry B. Vannatta, MD, associate professor of medicine, selected by the class of 1990, and Fred G. Silva, MD, professor and chairman, Department of Pathology, selected by the class of 1992.

At the OU College of Medicine—Tulsa, the class of 1990 named one full-time faculty member and one volunteer faculty member: F. Daniel Duffy, MD, professor and chairman, Department of Internal Medicine, full-time, and Michael Stoiko, MD, clinical

assistant professor, Department of Pediatrics, volunteer. Darren Geyer, MD, resident, Department of Family Practice, was the full-time faculty member chosen by the class of 1991. J

## Medical license renewals due

State physicians should note that applications for renewal of Oklahoma medical licenses have been mailed. Application and fee must be returned to the office of the Board of Medical Licensure and Supervision on or before June 30, 1990, to assure continuation of a physician's active license to practice medicine and surgery.

The fee for renewal is \$100.00 *if received on or before June 30*. Licenses unrenewed after June 30 become *inactive* for 60 days, after which they become

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## License renewals *(continued)*

suspended for failure to renew. If the renewal application is received *after June 30 but before August 29*, the fee is \$200.00. If the application is received *after August 29*, the fee is \$300.00.

Mail renewal applications and fees to Oklahoma Board of Medical Licensure and Supervision, PO Box 18256, Oklahoma City, OK 73154-0256.

Applicants are reminded to designate whether they *do* or *do not* wish to be registered as a dispensing physician. Where a designation is not indicated, the physician will automatically be identified as *not* registered to dispense, and dispensing without registration by the state board is unlawful.

Physicians who have questions or who *have not received their application for license renewal* should call the board office at (405) 848-6841. □

## Seminars to help office personnel

The Oklahoma State Medical Association (OSMA) and the Physicians Liability Insurance Company (PLICO) are sponsoring a series of half-day seminars to educate medical office staffs about their role in liability loss prevention.

Medical office and allied health care personnel are the physician's first line of defense in professional liability situations, and physicians are encouraged to send one or more staff representatives. The programs are free of charge and are a part of PLICO's ongoing loss prevention and risk management program for insured physicians. Participants will receive booklets and cassette tapes outlining ways to help avoid professional liability situations and lawsuits.

Scheduled through August, the half-day seminars are being presented at 9 AM and again at 1 PM at each location to maximize attendance from medical offices. The instructor will be Ed Kelsay, OSMA general counsel and PLICO loss prevention manager.

Programs will be presented in the following cities: Enid, Tuesday, June 19; McAlester, Thursday, June 21; Elk City, Tuesday, June 26; Muskogee, Thursday, June 28; Ardmore, Thursday, July 12; Woodward, Tuesday, July 17; Lawton, Thursday, July 19; Oklahoma City, Tuesday, August 14; and Tulsa, Thursday, August 16.

Registration information was mailed to physicians in April or can be obtained from OSMA headquarters, 601 Northwest Expressway, Oklahoma City, OK 73118, (405) 843-9571, 1-800-522-9452. □



Oklahoma State Department of Health

## OSDH studies motorcycle crashes and effectiveness of helmets



The Injury Epidemiology Division of the Oklahoma State Department of Health (OSDH) with the cooperation of the Department of Public Safety (DPS) conducted a study of motorcycle crash injuries among Oklaho-

mans using 1988 data. The study provides a description of Oklahomans involved in motorcycle crashes, including an assessment of severity and type of injury. It also allowed calculation of the efficacy of helmets in preventing head injuries.


Utilizing DPS data, 1,652 motorcycle riders in 1,423 crashes were evaluated; 78% of the persons were injured and 3% were killed. Current law provides that only persons under 18 years of age must wear a helmet while riding a motorcycle. Motorcycle riders 18 years of age and older accounted for 81% of the crash injuries and 92% of the deaths.

Helmet use during a crash for persons 18 years of age and older was 33%. Persons who were not wearing a helmet had more severe injuries than persons who were wearing a helmet. Seventy-eight percent of persons who were killed were not wearing a helmet. Helmets were 61% effective in preventing fatalities and 48% effective in preventing any degree of head injury.

Utilizing injury cost and data compiled by the OSDH, the study found that 48% of non-helmeted persons required hospitalization for their injuries, compared to 36% of helmeted persons. The study also found that the average emergency room and hospital bills were higher for non-helmeted persons than for helmeted persons. The total bill for acute medical care was \$3.8 million. Of that number, non-helmeted persons incurred 72%, or approximately \$2.8 million. Fifty-one percent of helmeted and 60% of non-helmeted persons did not have private insurance to cover their medical costs.

Total societal costs, including medical, long-term care, and potential public assistance costs, in Oklahoma due to motorcycle injuries in 1988 were estimated at \$25 million. Published reports suggest that by implementing a comprehensive helmet law, helmet usage rates increase to 95% to 100%. By increasing helmet use to this level, the data suggests at least 40 to 50 moderate, severe, and fatal head injuries could have been prevented in 1988. Additionally, the economic savings of implementing a comprehensive

helmet law in Oklahoma were estimated at \$4.1 million per year.

For more information about injuries resulting from motorcycle crashes, please call the Injury Epidemiology Division at (405) 271-3430. 

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
### Habits unchanged

## ***Bout with skin cancer fails to convince many of sun's danger***

Even after they have a skin cancer surgically removed, nearly 40% of people balk at using any type of sunscreen, according to a new report.

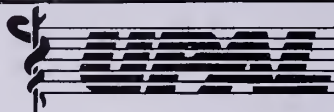
In a study in April's *Archives of Dermatology*, June K. Robinson, MD, of the Department of Dermatology at Northwestern University Medical School, Chicago, Ill, writes that although these patients know of the dangers of the sun, many aren't ready to change their habits.

"While the dangers of overexposure are well documented, people are not yet fully convinced," she writes. "The attitude of these noncompliant individuals, who were usually women, was that skin cancer was not enough of a problem to give up a tan, which made them feel good, and that the sunscreens have an objectionable sticky feeling."

The study focused on 1,042 people who had a non-melanoma skin cancer surgically removed. They received repeated warnings about the sun and about proper protection. A year later, 62% of the patients had begun to use sunscreen and 56% had changed their outdoor recreation habits. The study notes that patients older than 65 years were less likely than younger patients to change their sunbathing habits. 

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**Nursing History. New Perspectives, New Possibilities.** Edited by Ellen Condliffe Lagemann. New York: Columbia University, Teachers College Press, 1983. Pp X, 220, price \$18.95.

In May 1981 the Rockefeller Archives Center in Pocantico Hills, NY, sponsored a two-day conference on the history of nursing. This book represents the proceedings of this conference. It is divided into nine essays, the contributors representing nursing, history, sociology, and women's studies.

Nursing is a field in which women are a majority, and growing interest in women's history has obviously enhanced interest in nursing history. This book is a product of the last two or so decades of research into nursing's past. The essays proceed beyond the traditional study of the nursing profession and its leaders and provide an examination of nursing in regard to such influences as gender, professional status, and social class. As pointed out in the introduction, the essays are not joined by any single theme or model or style. They are united, rather, by a diversely expressed effort to find ways to understand an important aspect of the history of nursing. They explore re-

lationships between nursing, the development of health care services, and the formation of occupational structures.

Armeny's essay deals with cooperation and conflict between trained nurses and female philanthropists during two periods of military emergency. The essay by Davies also shares an interest in nursing politics and in cooperative undertakings among nurses and philanthropists, but concerns people in Europe as well as this country. Another essay studies the development of the fields of home health services such as midwifery and public health nursing. Tomes, a historian, discusses in detail the problems of nurse registration, and Susan Riverby, in addition to historical overview, reviews the decline of private duty nursing and discusses various alternatives.

Barbara Melosh explores the way in which general attitudes toward women have been incorporated in views of the nurse and her role. She emphasizes the role of nurses in fiction writing. The last essay provides a pertinent bibliography of nursing during the past twenty or so years. Nurses and others interested in the history of nursing and its relationship

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to women's history will be impressed by the breadth and depth of these essays.

—Harris D. Riley, Jr., MD  
Oklahoma City

**Adolescent Gynecology: A Guide for Clinicians.** Edited by Alfred M. Bongiovanni. New York: Plenum Medical Book Co., 1983. Pp 257, illustrated, \$32.50.

## IN MEMORIAM

### 1989

Mary Edna Sippel, MD	April 10
Ruben Hilton Mayberry, MD	April 20
Norman Eugene Dearnbarger, MD	May 6
Gordon Kent Jimerson, MD	May 6
Orville McClure Woodson, MD	May 11
Robert Sears Davis, Jr., MD	May 13
James Richard Riggall, MD	May 30
Howard Choice Martin, MD	July 23
D. Evelyn Miller, MD	July 30
Nevin Wilson Dodd, MD	July 31
Alwyn Travers Kornblee, MD	August 7
Edward Keats Norfleet, MD	August 13
Wayman Jackson Thompson, MD	September 20
Rheba L. Huff Edwards, MD	September 30
George Harry Garrison, MD	October 5
Monroe Ruework Jennings, MD	October 27
Edmund Gordon Ferguson, MD	November 17
Don Lee Dycus, MD	December 6
Sylvester Robert Shaver, MD	December 16
Charles Edwards Leonard, MD	December 27

### 1990

John Justice Batchelor, MD	January 8
Fred W. Sellers, MD	January 11
Dewey Lee Mathews, MD	January 18
Powell Everett Fry, MD	January 28
Alpha Louis Johnson, MD	February 3
Marshall W. Opper, MD	February 12
Vincel Sundgren, MD	March 1
Glen Smith Kreger, MD	March 25
Martin James Fitzpatrick, MD	March 27
David Charles Lowry, MD	March 30
Robert Alan Johnston, MD	April 9
Hervey Adolph Foerster, MD	April 15

As pointed out in the preface, the text is designed with several goals. The provider of health care for the adolescent girl should have an appreciation of the normal physiology and pathology of this critical stage in development. The laboratory guidelines in terms of hormonal changes are detailed as pertinent. Sexual behavior in contemporary society and its consequences are thus given substantial attention.

The 13 chapters are contributed by 12 authors, all of whom are associated with academic medical centers in Philadelphia. In the first section, entitled "The Initial Encounter," Alvin F. Goldfarb provides a pertinent review of the importance of a special approach to adolescents and the need for establishing good rapport. He points out several important attitudinal characteristics of the physician, the patient, and the other members of the team. Chapter Two provides a pertinent review of pubertal development by Wallach and Bongiovanni.

The text gives emphasis to sexual problems in adolescents with chapters on contraception, sexual behavior, teenage pregnancy, and legal considerations in the treatment of minors. Other chapters discuss ovarian dysfunction, anomalies of the reproductive tract, and gynecologic tumors. The chapter on sexual behavior in adolescents by Lief is particularly useful and discusses a number of pertinent topics.

This is an up-to-date overview of the gynecologic problems peculiar to adolescence. It could be recommended for all who are concerned with patients in this age group.

—Harris D. Riley, Jr., MD  
Oklahoma City

**American Sportsmen and the Origins of Conservation.** Revised Edition. By John F. Rieger. Norman & London: University of Oklahoma Press, 1975, 1986. Pp 316, index, illus, notes, bibliography, \$11.95.

The thesis of this interesting book is that American sportsmen were the true spearheads of the conservation movement. Author John F. Rieger, who is well qualified to address the subject of conservation, early differentiates hunting for pleasure from commercial hunting and provides documentation that no species of animal has ever become extinct in the United States as a result of sports hunting.

He discusses the historical development of American sportsmen and their code. The appearance of the monthly newspaper, the *American Sportsman*, in

1871 was of crucial importance. It was the country's first national periodical to make the interrelated subjects of hunting, fishing, natural history, and conservation its primary concerns. Although President Theodore Roosevelt and his chief forester, Gifford Pinchot, made conservation a household word, sportsmen preceded them considerably in their efforts to conserve wildlife. Rieger reviews the history of the efforts to preserve the forests, the development of the national park concept, the establishment and activities of the Boone and Crockett Club, and the development of a national conservation policy.

The book contains 151 pages of text, 43 pages of documentation, and a comprehensive bibliography. Particularly interesting is an extensive (69 pages) "Picture Album of Sports and Conservation."

The book is scholarly and well written, providing a fresh perspective on the history of conservation.

Conservationists are in the debt of the University of Oklahoma Press for republishing this book in paperback.

—Harris D. Riley, Jr., MD  
Oklahoma City

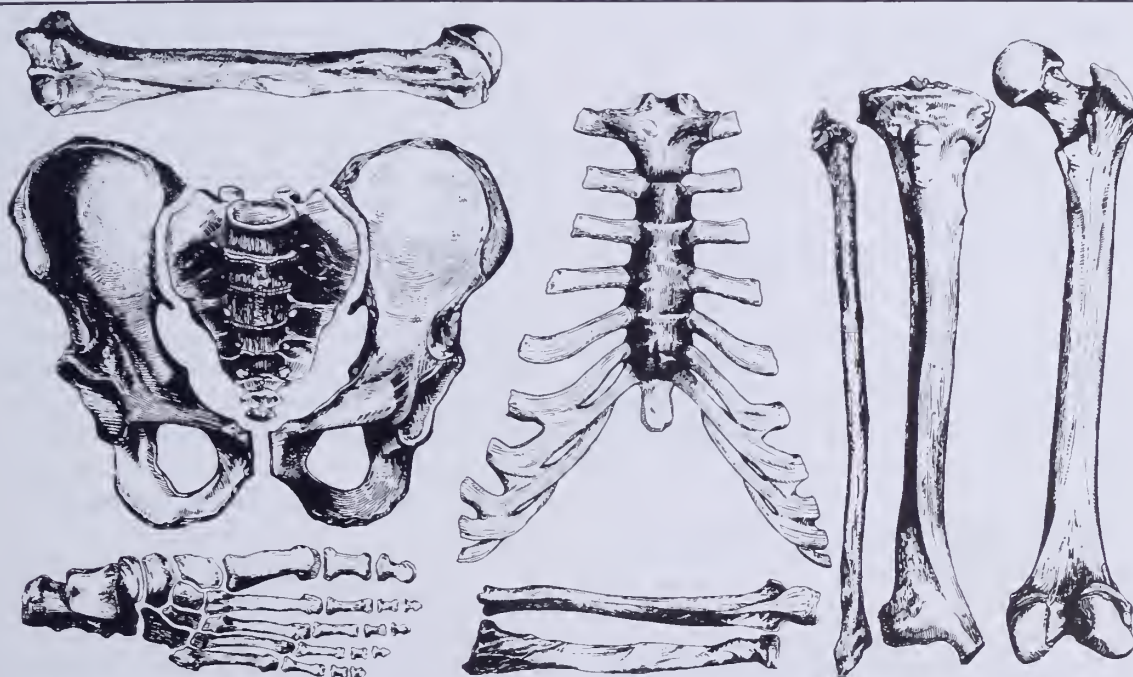
**The Eskimos.** Text by Ernest S. Burch, Jr. Photographs by Werner Forman. Norman & London: University of Oklahoma Press, 1988, 128 pages, 120 colored photographs, introduction, bibliography, index, acknowledgments, maps, \$22.50.

This delightful book is in reality a story of a people on the frigid fringes of Alaska, Canada, Greenland, and the Soviet Union. Their geographic location is clearly revealed by maps inside the front and back covers of the book.

The introduction gives an excellent panoramic review of the ethnological background of these people which extends back over thousands of years.

One reads with much interest about their art, mythology, spiritual orientation (along with the role of the shamans in this), their social functions, their family and community life and how they are linked to their struggles for survival in an environment where survival might seem an impossibility, how they obtain food, clothing, and shelter, along with the hardships therein involved.

I know of no race of people about which the old adage "Where there's a will, there's a way" might fit



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more applicably than the Eskimo. They indeed possess an abundance of ingenuity and resourcefulness.

The delight in reading this book is greatly enhanced by the excellent color photographs, which are well described and explained.

The lengthy bibliography and the list of acknowledgments witness the fact that the material has been extensively researched.

In summary, I find this a book which I am pleased to read and highly recommend it for enjoyable reading.

—*Luke L. Ellenburg, Sr., MD*  
*Greeneville, Tenn*

### **Cherokee Tragedy: The Ridge Family and the Decimation of a People** by Thurman Wilkins.

Norman: University of Oklahoma Press, 1986, second edition, revised, cloth, 416 pages, illustrations, maps,

index, notes, bibliography. Price not given.

Viewing the most turbulent epic of Cherokee history through the actions of the Ridge-Watie-Boudinot family, *Cherokee Tragedy* vividly portrays the bitterness and hatred resulting from the forced removal of the Cherokees to present-day Oklahoma — an act that was made possible by the efforts of Major Ridge, who for seven decades was one of the most important leaders of the Cherokee Nation. Born in either 1770 or 1771, Kah-nung-da-tla-heh, or “the man who walks on the mountaintop,” “The Ridge” acquired his first name as a result of his military service in the Creek War of 1811-1812 when he was commissioned a major to command a regiment of Cherokees fighting with the Americans. Disappointed that his people’s sacrifice during the conflict did not lessen the American demands for more and more of the ancient Cherokee homeland, Major Ridge vigorously opposed the federal government’s policy of Indian removal during the early period of removal negotiations. As pat-

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## **DEATHS**

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### **Hervey Adolph Foerster, MD** **1903 - 1990**

OSMA Life Member Hervey A. Foerster, MD, died April 15, 1990, in Oklahoma City. Dr Foerster, a native of Rogers City, Mich, attended the University of Oklahoma School of Medicine, where he graduated in 1927. A dermatologist, he practiced in Ada and Ardmore before moving to Oklahoma City in 1936. During World War II he served for more than 5 years in the US Army, attaining the rank of Lieutenant Colonel. In addition to his private practice, Dr Foerster was a professor at the OU School of Medicine for 33 years.

### **Robert Alan Johnston, MD** **1950 - 1990**

Wagoner internist Robert A. Johnston, MD, died April 9 when his single-engine plane crashed during a thunderstorm near Inola. Dr Johnston was a member of the Wagoner Community Hospital medical executive committee and board of trustees. Formerly he was the hospital’s chief of staff. Born in Muskogee, Dr Johnston graduated from the University of Oklahoma College of Medicine in 1976.

### **Glenn Smith Kreger, MD** **1909 - 1990**

Glenn S. Kreger, MD, longtime Tonkawa general practitioner, died March 25 at his home. Dr Kreger was born in Listie, Penn, and earned his medical degree from the University of Pennsylvania Medical School in 1933. He established his practice in Tonkawa the following year. In 1942 he volunteered for active duty in the US Army and served as a medical officer in the Normandy invasion and the Battle of the Bulge. He returned to Tonkawa in 1945 and retired from the practice of medicine in 1974.

### **David Charles Lowry, MD** **1922 - 1990**

David C. Lowry, MD, retired Oklahoma City radiologist, died March 30 in Oklahoma City. A native of Oklahoma City, Dr Lowry earned his medical degree in 1946 from the University of Oklahoma School of Medicine. He practiced medicine in his hometown for more than 36 years before retiring, and was awarded an OSMA Life Membership in 1987. (J)



riarch of the Ridge-Watie-Boudinot faction, Ridge's philosophy was echoed by his son John Ridge, his brother David Watie, and Watie's sons Buck Watie, who took the name Elias Boudinot, and Stand Watie.

However, with the election of Andrew Jackson to the presidency it became evident to Ridge and his followers that removal to a new home in the West was the only means to preserve tribal independence. Following the lead of the Choctaws and Creeks, the Ridge-Watie-Boudinot faction of Cherokees entered into removal negotiations in the early 1830s. This action was bitterly opposed by Principal Chief John Ross, who refused to consider any additional surrender of tribal lands.

Despite the opposition of Ross and the majority of Cherokees, the Ridge-Watie-Boudinot faction signed the Treaty of New Echota on December 29, 1835, and committed the tribe to removal. Leaving the Cherokee Nation, East, soon afterward, the Ridge-Watie-Boudinot supporters made the journey westward in comparative ease. However, led by Chief Ross, the majority of the tribe refused to honor the New Echota agreement, were forceably rounded up by federal troops, and suffered horribly as they were herded over the "Trail of Tears."

Invoking the Cherokee Blood Law calling for death to any tribal member surrendering the ancient homeland, the anti-treaty faction of Cherokees passed a death sentence upon Ridge, his son, and nephews. The sentence was carried out on June 22, 1839, when Major Ridge, John Ridge, and Elias Boudinot were killed by unknown assassins. Watie, who barely managed to escape the attempt on his life, assumed the leadership of the Ridge-Watie-Boudinot faction after his uncle's murder. Under his mantle, the bitter conflict continued to plague the Cherokees for another four decades. It was not until 1871, a century after Major Ridge's birth, that the major participants in the removal controversy passed from the scene.

Wilkins has brilliantly presented the entire spectrum of Cherokee politics during the seven decades between The Ridge's birth and his murder. His exacting scholarship presents a penetrating social and political insight into the tribe's most turbulent period. In addition, the revised edition addresses new questions that have been raised by historians in the decade and a half since *Cherokee Tragedy* was first released. Foremost among these — did the members of the Ridge-Watie-Boudinot faction succumb to bribes offered by the federal government? Fascinating reading for the general public, history buff, or scholar,

*Cherokee Tragedy* is one of the best tribal histories available.

—Kenny A. Franks  
Oklahoma Heritage Association



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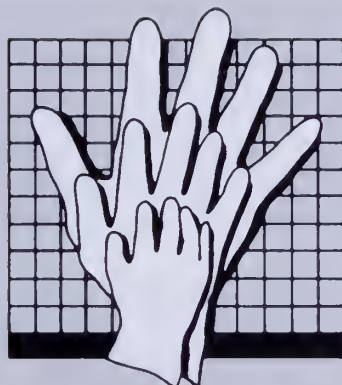
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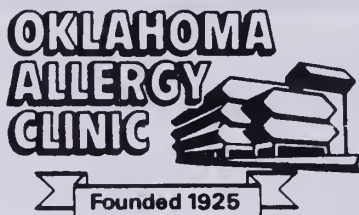
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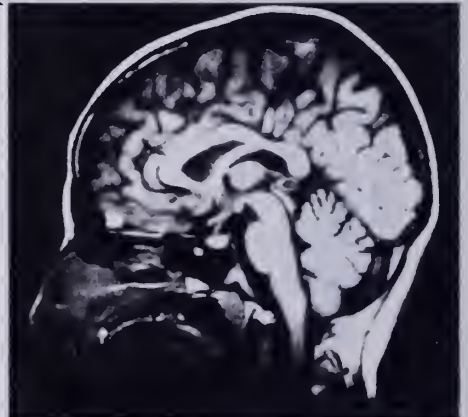
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# AIM HIGH



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■ **The annual scientific meeting of the Oklahoma Transplant Society** will be held on Saturday, October 27, 1990, at the Marriott Hotel in Oklahoma City. The meeting will consist of papers presented by members and guests from the Texas Transplant Society. Topics will include kidney, heart, liver, lung, and bone marrow transplantation. All medical, nursing, and paramedical colleagues are welcome to attend and/or to become members of the society. Anyone wishing to present a short paper at this meeting or requiring further information about the program should contact D.K.C. Cooper, MD, PhD, Oklahoma Transplantation Institute, Baptist Medical Center, 3300 NW Expressway, Oklahoma City, OK 73112, (405) 949-3349.

■ **An all-new edition of *A Physician's Guide to Professional Corporations*** is now available from the American Medical Association. The book explains the pros and cons of incorporation and clearly outlines legal and tax implications. It clarifies the rules of operating a professional corporation by translating this complex issue into common terms using a point-by-point approach. The guide, OP 378289, is available at \$18 for AMA members (\$27 for nonmembers) from the AMA, Book and Pamphlet Fulfillment, Post Office Box 10946, Chicago, IL 60610-0946, or call 1-800-621-8335 to order with Visa or Mastercard.

■ **Medical eye care for the disadvantaged** elderly in Oklahoma is available through the toll-free Helpline of the National Eye Care Project, 1-800-222-EYES. Each qualified caller will be matched with a nearby ophthalmologist who has volunteered to provide medical eye care at no out-of-pocket cost to the patient. Medicare or other insurance will be accepted as payment in full; if the patient has no insurance, the care is free. To qualify, a patient must be age 65 or older and a US citizen or legal resident. The patient must no longer have access to an ophthalmologist he or she has seen in the past.

The National Eye Care Project is designed to detect and treat eye disease, a frequent cause of blindness among the elderly; it is not an eyeglasses program, and neither prescription drugs nor hospital care are provided. The project is sponsored by the Oklahoma State Society of Eye Physicians and Surgeons and the Foundation of the American Academy of Ophthalmology. Since it opened in 1986, it has re-

ceived more than 4,200 calls from Oklahoma residents and has referred more than 2,700 patients to volunteer ophthalmologists.

■ **"Patients, Practices, and Procedures — Outlooks for the Future"** is the name of a multifaceted seminar being presented August 2-5 in Phoenix. Sponsored by Mercy Health Center, Oklahoma City, the CME-accredited programs will discuss such topics as AIDS and other sexually transmitted diseases, medical oncology for the primary care physician, vascular reconstructive procedures in the legs, obsessive and compulsive disorders, malingering and deception in medical practice, and the dissolution of gallstones. Registration deadline for the seminar, to be held at The Pointe at Tapatio Cliffs, is July 12. For information call Sheri Van Oosten, Meeting Planner, at (405) 752-3603.

■ **Nineteen cases of eosinophilia-myalgia syndrome (EMS)**, an illness associated with the use of L-tryptophan (LT), had been reported in Oklahoma as of March 23, according to the April *Epidemiology Bulletin* of the Oklahoma State Department of Health. No deaths had been reported, and there had been no new cases for two months. A total of 1,417 cases of EMS had been reported to the Centers for Disease Control in Atlanta, and there had been 20 deaths among patients who took LT. Because illness has occurred in persons taking amounts as small as 100 mg/day, the original LT recall has been expanded to all products containing any amount of the substance (except for a few pharmaceutically manufactured products). No artificially produced LT should be available to or consumed by the public.

■ **AMA President Alan R. Nelson, MD, will be** the first keynote speaker at a conference in Wichita next month. Entitled "Who pays for a Healthy America: Options for Health Care in the 1990s," the July 13-14 conference will be on the campus of Wichita State University and will be jointly sponsored by WSU and the University of Kansas. Today's critical health issues will be examined, providing a basis for making good decisions in the future. For details and registration information, contact Assistant Dean Richard Meyer, University of Kansas Division of Continuing Education, Continuing Education Building, Lawrence, KS 66045-2600, (913) 864-4790.

□





# VASOTEC<sup>®</sup>

(ENALAPRIL MALEATE | MSD)

VASOTEC is available in 2.5-mg, 5-mg, 10-mg, and 20-mg tablet strengths.

**Contraindications:** VASOTEC<sup>®</sup> (Enalapril Maleate, MSO) is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor.

**Warnings:** **Angioedema.** Angioedema of the face, extremities, lips, tongue, glottis, and/or larynx has been reported in patients treated with ACE inhibitors, including VASOTEC. In such cases, VASOTEC should be promptly discontinued and the patient carefully observed until the swelling disappears. In instances where swelling has been confined to the face and lips, the condition has generally resolved without treatment, although antihistamines have been useful in relieving symptoms. Angioedema associated with laryngeal edema may be fatal. **Where there is involvement of the tongue, glottis, or larynx likely to cause airway obstruction, appropriate therapy, e.g., subcutaneous epinephrine solution 1:1000 (0.3 mL to 0.5 mL), should be promptly administered.** (See ADVERSE REACTIONS.)

**Hypotension.** Excessive hypotension is rare in uncomplicated hypertensive patients treated with VASOTEC alone. Patients with heart failure given VASOTEC commonly have some reduction in blood pressure, especially with the first dose, but discontinuation of therapy for continuing symptomatic hypotension usually is not necessary when dosing instructions are followed, caution should be observed when initiating therapy. (See DOSAGE AND ADMINISTRATION.) Patients at risk for excessive hypotension, sometimes associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death, include those with the following conditions or characteristics: heart failure, hypotension, high-dose diuretic therapy, recent intensive diuresis or increase in diuretic dose, renal dialysis, or severe volume and/or salt depletion of any etiology. It may be advisable to eliminate the diuretic (except in patients with heart failure), reduce the diuretic dose, or increase salt intake cautiously before initiating therapy with VASOTEC. Patients at risk for excessive hypotension who are able to tolerate such adjustments. (See PRECAUTIONS, Drug Interactions and ADVERSE REACTIONS.) In patients at risk for excessive hypotension, therapy should be started under very close medical supervision and such patients should be followed closely for the first two weeks of treatment and whenever the dose of enalapril and/or diuretic is increased. Similar considerations may apply to patients with ischemic heart disease or cardiovascular disease in whom an excessive fall in blood pressure could result in a myocardial infarction or cerebrovascular accident. If excessive hypotension occurs, the patient should be placed in the supine position and, if necessary, receive an intravenous infusion of normal saline. A transient hypotensive response is not a contraindication to further doses of VASOTEC, which usually can be given without difficulty once the blood pressure has stabilized. If symptomatic hypotension develops, a dose reduction or discontinuation of VASOTEC or concomitant diuretic may be necessary.

**Neutropenia/Agranulocytosis.** Another ACE inhibitor, captopril, has been shown to cause agranulocytosis and bone marrow depression, rarely in uncomplicated patients but more frequently in patients with renal impairment, especially if they also have a collagen vascular disease. Available data from clinical trials of enalapril are insufficient to show that enalapril does not cause agranulocytosis at similar rates. Foreign marketing experience has revealed several cases of neutropenia or agranulocytosis in which a causal relationship to enalapril cannot be excluded. Periodic monitoring of white blood cell counts in patients with collagen vascular disease and renal disease should be considered.

**Precautions: General Impaired Renal Function.** As a consequence of inhibiting the renin-angiotensin-aldosterone system, changes in renal function may be anticipated in susceptible individuals. In patients with severe heart failure whose renal function may depend on the activity of the renin-angiotensin-aldosterone system, treatment with ACE inhibitors, including VASOTEC, may be associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death.

In clinical studies in hypertensive patients with unilateral or bilateral renal artery stenosis, increases in blood urea nitrogen and serum creatinine were observed in 20% of patients. These increases were almost always reversible upon discontinuation of enalapril and/or diuretic therapy. In such patients, renal function should be monitored during the first few weeks of therapy.

Some patients with hypertension or heart failure with no apparent preexisting renal vascular disease have developed increases in blood urea and serum creatinine, usually minor and transient, especially when VASOTEC has been given concomitantly with a diuretic. This is more likely to occur in patients with preexisting renal impairment. Dose reduction and/or discontinuation of the diuretic and/or VASOTEC may be required.

**Evaluation of patients with hypertension or heart failure should always include assessment of renal function.** (See DOSAGE AND ADMINISTRATION.)

**Hyperkalemia.** Elevated serum potassium ( $>5.7$  mEq/L) was observed in approximately 1% of hypertensive patients in clinical trials. In most cases these were isolated values which resolved despite continued therapy. Hyperkalemia was a cause of discontinuation of therapy in 0.28% of hypertensive patients. In clinical trials in heart failure, hyperkalemia was observed in 3.8% of patients, but was not a cause for discontinuation.

Risk factors for the development of hyperkalemia include renal insufficiency, diabetes mellitus, and the concomitant use of potassium-sparing diuretics, potassium supplements, and/or potassium-containing salt substitutes, which should be used cautiously, if at all, with VASOTEC. (See Drug Interactions.)

**Surgery/Anesthesia.** In patients undergoing major surgery or during anesthesia with agents that produce hypotension, enalapril may block angiotensin II formation secondary to compensatory renin release. If hypotension occurs and is considered to be due to this mechanism, it can be corrected by volume expansion.

#### Information for Patients

**Angioedema.** Angioedema, including laryngeal edema, may occur especially following the first dose of enalapril. Patients should be so advised and told to report immediately any signs or symptoms suggesting angioedema (swelling of face, extremities, eyes, lips, tongue, difficulty in swallowing or breathing) and to take no more drug until they have consulted with the prescribing physician.

**Hypotension.** Patients should be cautioned to report lightheadedness, especially during the first few days of therapy. If actual syncope occurs, the patients should be told to discontinue the drug until they have consulted with the prescribing physician.

All patients should be cautioned that excessive perspiration and dehydration may lead to an excessive fall in blood pressure because of reduction in fluid volume. Other causes of volume depletion such as vomiting or diarrhea may also lead to a fall in blood pressure; patients should be advised to consult with the physician.

**Hyperkalemia.** Patients should be told not to use salt substitutes containing potassium without consulting their physician.

**Neutropenia.** Patients should be told to report promptly any indication of infection (e.g., sore throat, fever) which may be a sign of neutropenia.

**NOTE.** As with many other drugs, certain advice to patients being treated with enalapril is warranted. This information is intended to aid in the safe and effective use of this medication. It is not a disclosure of all possible adverse or intended effects.

#### Drug Interactions

**Hypotension. Patients on Diuretic Therapy.** Patients on diuretics and especially those in whom diuretic therapy was recently instituted may occasionally experience an excessive reduction of blood pressure after initiation of therapy with enalapril. The possibility of hypotensive effects with enalapril can be minimized by either discontinuing the diuretic or increasing the salt intake prior to initiation of treatment with enalapril. If it is necessary to continue the diuretic, provide close medical supervision after the initial dose for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and DOSAGE AND ADMINISTRATION.)

**Agents Causing Renin Release.** The antihypertensive effect of VASOTEC is augmented by antihypertensive agents that cause renin release (e.g., diuretics).

**Other Cardiovascular Agents.** VASOTEC has been used concomitantly with beta-adrenergic-blocking agents, methyl-dopa, nitrates, calcium-blocking agents, hydralazine, prazosin, and digoxin without evidence of clinically significant adverse interactions.

**Agents Increasing Serum Potassium.** VASOTEC attenuates potassium loss caused by thiazide-type diuretics. Potassium-sparing diuretics (e.g., spironolactone, triamterene, or amiloride), potassium supplements, or potassium-containing salt substitutes may lead to significant increases in serum potassium. Therefore, if concomitant use of these agents is indicated because of demonstrated hypokalemia, they should be used with caution and with frequent monitoring of serum potassium. Potassium-sparing agents should generally not be used in patients with heart failure receiving VASOTEC.

**Lithium.** Lithium toxicity has been reported in patients receiving lithium concomitantly with drugs which cause elimination of sodium, including ACE inhibitors. A few cases of lithium toxicity have been reported in patients receiving concomitant VASOTEC and lithium and were reversible upon discontinuation of both drugs. It is recommended that serum lithium levels be monitored frequently if enalapril is administered concomitantly with lithium.

**Pregnancy—Category C.** There was no fetotoxicity or teratogenicity in rats treated with up to 200 mg/kg/day of enalapril (333 times the maximum human dose). Fetotoxicity, expressed as a decrease in average fetal weight, occurred in rats given 1200 mg/kg/day of enalapril but did not occur when these animals were supplemented with saline. Enalapril was not teratogenic in rabbits. However, maternal and fetal toxicity occurred in some rabbits at doses of 1 mg/kg/day or more. Saline supplementation prevented the maternal and fetal toxicity seen at doses of 3 and 10 mg/kg/day, but not at 30 mg/kg/day (50 times the maximum human dose).

been clearly defined, VASOTEC<sup>®</sup> (Enalapril Maleate, MSO) should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Postmarketing experience with all ACE inhibitors thus far suggests the following with regard to pregnancy outcome. Inadvertent exposure limited to the first trimester of pregnancy has not been reported to affect fetal outcome adversely. Fetal exposure during the second and third trimesters of pregnancy has been associated with fetal and neonatal morbidity and mortality.

When ACE inhibitors are used during the later stages of pregnancy, there have been reports of hypotension and decreased renal perfusion in the newborn. Oligohydramnios in the mother has also been reported, presumably representing decreased renal function in the fetus. Infants exposed *in utero* to ACE inhibitors should be closely observed for hypotension, oliguria, and hyperkalemia. If oliguria occurs, attention should be directed toward support of blood pressure and renal perfusion with the administration of fluids and pressors as appropriate. Problems associated with prematurity such as patent ductus arteriosus have occurred in association with maternal use of ACE inhibitors, but it is not clear whether they are related to ACE inhibition, maternal hypotension, or the underlying prematurity.

**Nursing Mothers.** Milk in lactating rats contains radioactively following administration of <sup>14</sup>C enalapril maleate. It is not known whether this drug is secreted in human milk. Because many drugs are secreted in human milk, caution should be exercised when VASOTEC is given to a nursing mother.

**Pediatric Use.** Safety and effectiveness in children have not been established.

**Adverse Reactions.** VASOTEC has been evaluated for safety in more than 10,000 patients, including over 1000 patients treated for one year or more. VASOTEC has been found to be generally well tolerated in controlled clinical trials involving 2987 patients.

**HYPERTENSION.** The most frequent clinical adverse experiences in controlled trials were: headache (5.2%), dizziness (4.3%), and fatigue (3%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in controlled clinical trials were: diarrhea (1.4%), nausea (1.4%), rash (1.4%), cough (1.3%), orthostatic effects (1.2%), and asthenia (1.1%).

**HEART FAILURE.** The most frequent clinical adverse experiences in both controlled and uncontrolled trials were: dizziness (7.9%), hypotension (6.7%), orthostatic effects (2.2%), syncope (2.2%), cough (2.2%), chest pain (2.1%), and diarrhea (2.1%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in both controlled and uncontrolled clinical trials were: fatigue (1.8%), headache (1.8%), abdominal pain (1.6%), asthenia (1.6%), orthostatic hypotension (1.6%), vertigo (1.6%), angina pectoris (1.5%), nausea (1.3%), vomiting (1.3%), bronchitis (1.3%), dyspnea (1.3%), urinary tract infection (1.3%), rash (1.3%), and myocardial infarction (1.2%).

Other serious clinical adverse experiences occurring since the drug was marketed or adverse experiences occurring in 0.5% to 1% of patients with hypertension or heart failure in clinical trials in order of decreasing severity within each category:

**Cardiovascular:** Cardiac arrest, myocardial infarction or cerebrovascular accident, possibly secondary to excessive hypotension in high-risk patients (see WARNINGS, Hypotension), pulmonary embolism and infarction, pulmonary edema, rhythm disturbances, atrial fibrillation, palpitation.

**Digestive:** Ileus, pancreatitis, hepatitis (hepatocellular or cholestatic jaundice), melena, anorexia, dyspepsia, constipation, glossitis, stomatitis, dry mouth.

**Musculoskeletal:** Muscle cramps.

**Nervous/Psychiatric:** Depression, confusion, ataxia, somnolence, insomnia, nervousness, paresthesia.

**Urogenital:** Renal failure, oliguria, renal dysfunction (see PRECAUTIONS and DOSAGE AND ADMINISTRATION).

**Respiratory:** Bronchospasm, rhinorrhea, sore throat and hoarseness, asthma, upper respiratory infection.

**Skin:** Exfoliative dermatitis, toxic epidermal necrolysis, Stevens-Johnson syndrome, herpes zoster, erythema multiforme, urticaria, pruritus, alopecia, flushing, hyperhidrosis.

**Special Senses:** Blurred vision, taste alteration, anosmia, tinnitus, conjunctivitis, dry eyes, tearing.

A symptom complex has been reported which may include a positive ANA, an elevated erythrocyte sedimentation rate, arthralgia/arthritis, myalgias, fever, serositis, vasculitis, leukocytosis, eosinophilia, photosensitivity, rash, and other dermatologic manifestations.

**Angioedema.** Angioedema has been reported in patients receiving VASOTEC (0.2%). Angioedema associated with laryngeal edema may be fatal. If angioedema of the face, extremities, lips, tongue, glottis, and/or larynx occurs, treatment with VASOTEC should be discontinued and appropriate therapy instituted immediately. (See WARNINGS.)

**Hypotension.** In the hypertensive patients, hypotension occurred in 0.9% and syncope occurred in 0.5% of patients following the initial dose or during extended therapy. Hypotension or syncope was a cause for discontinuation of therapy in 0.1% of hypertensive patients. In heart failure patients, hypotension occurred in 6.7% and syncope occurred in 2.2% of patients. Hypotension or syncope was a cause for discontinuation of therapy in 1.9% of patients with heart failure. (See WARNINGS.)

#### Clinical Laboratory Test Findings

**Serum Electrolytes.** Hyperkalemia (see PRECAUTIONS), hyponatremia.

**Creatinine, Blood Urea Nitrogen.** In controlled clinical trials, minor increases in blood urea nitrogen and serum creatinine, reversible upon discontinuation of therapy, were observed in about 0.2% of patients with essential hypertension treated with VASOTEC alone. Increases are more likely to occur in patients receiving concomitant diuretics or in patients with renal artery stenosis. (See PRECAUTIONS.) In patients with heart failure who were also receiving diuretics with or without digitalis, increases in blood urea nitrogen or serum creatinine, usually reversible upon discontinuation of VASOTEC and/or other concomitant diuretic therapy, were observed in about 1% of patients. Increases in blood urea nitrogen or creatinine were a cause for discontinuation in 1.2% of patients.

**Hemoglobin and Hematocrit.** Small decreases in hemoglobin and hematocrit (mean decreases of approximately 0.3 g/dL and 1.0 vol %, respectively) occur frequently in either hypertension or heart failure patients treated with VASOTEC but are rarely of clinical importance unless another cause of anemia coexists. In clinical trials, less than 0.1% of patients discontinued therapy due to anemia.

**Other (Causal Relationship Unknown).** In marketing experience, rare cases of neutropenia, thrombocytopenia, and bone marrow depression have been reported. A few cases of hemolysis have been reported in patients with G6PD deficiency.

**Liver Function Tests.** Elevations of liver enzymes and/or serum bilirubin have occurred.

**Dosage and Administration: Hypertension.** In patients who are currently being treated with a diuretic, symptomatic hypotension occasionally may occur following the initial dose of VASOTEC. The diuretic should, if possible, be discontinued for two to three days before beginning therapy with VASOTEC to reduce the likelihood of hypotension. (See WARNINGS.) If the patient's blood pressure is not controlled with VASOTEC alone, diuretic therapy may be resumed.

If the diuretic cannot be discontinued, an initial dose of 2.5 mg should be used under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, Drug Interactions.)

The recommended initial dose in patients not on diuretics is 5 mg once a day. Dosage should be adjusted according to blood pressure response. The usual dosage range is 10 to 40 mg per day administered in a single dose or in two divided doses. In some patients treated once daily, the antihypertensive effect may diminish toward the end of the dosing interval. In such patients, an increase in dosage or twice-daily administration should be considered. If blood pressure is not controlled with VASOTEC alone, a diuretic may be added.

Concomitant administration of VASOTEC with potassium supplements, potassium salt substitutes, or potassium-sparing diuretics may lead to increases of serum potassium (see PRECAUTIONS).

**Dosage Adjustment in Hypertensive Patients with Renal Impairment.** The usual dose of enalapril is recommended for patients with a creatinine clearance  $> 30$  mL/min (serum creatinine of up to approximately 3 mg/dL). For patients with creatinine clearance  $\leq 30$  mL/min (serum creatinine  $\geq 3$  mg/dL), the first dose is 2.5 mg once daily. The dosage may be titrated upward until blood pressure is controlled or to a maximum of 40 mg daily.

**Heart Failure.** VASOTEC is indicated as adjunctive therapy with diuretics and digitalis. The recommended starting dose is 2.5 mg once or twice daily. After the initial dose of VASOTEC, the patient should be observed under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, Drug Interactions.) If possible, the dose of the diuretic should be reduced, which may diminish the likelihood of hypotension. The appearance of hypotension after the initial dose of VASOTEC does not preclude subsequent careful dose titration with the drug, following effective management of the hypotension. The usual therapeutic dosing range for the treatment of heart failure is 5 to 20 mg daily given in two divided doses. The maximum daily dose is 40 mg. Once-daily dosing has been effective in a controlled study, but nearly all patients in this study were given 40 mg, the maximum recommended daily dose, and there has been much more experience with twice-daily dosing. In addition, in a placebo-controlled study which demonstrated reduced mortality in patients with severe heart failure (NYHA Class IV), patients were treated with 2.5 to 40 mg per day of VASOTEC, almost always administered in two divided doses. (See CLINICAL PHARMACOLOGY, Pharmacokinetics and Clinical Effects.) Dosage may be adjusted depending upon clinical or hemodynamic response. (See WARNINGS.)

**Dosage Adjustment in Patients with Heart Failure and Renal Impairment or Hyponatremia.** In patients with heart failure who have hyponatremia (serum sodium  $< 130$  mEq/L) or with serum creatinine  $> 1.6$  mg/dL, therapy should be initiated at 2.5 mg daily under close medical supervision. (See DOSAGE AND ADMINISTRATION, Heart Failure, WARNINGS, and PRECAUTIONS, Drug Interactions.) The dose may be increased to 2.5 mg b.i.d., then 5 mg b.i.d. and higher as needed, usually at intervals of four days or more, at the time of dosage adjustment there is not excessive hypotension or significant deterioration of renal func-

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A diminished antihypertensive effect toward the end of the dosing interval can occur in some patients.

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# 1990

## ANNUAL



## MEETING PROCEEDINGS



# Oklahoma City Clinic

## Multiple Specialty Clinics

### Ambulatory Care 271-2728

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Leslie A. Arneson, M.D.

### Aviation Medicine 271-2728

Leslie A. Arneson, M.D.

### Behavioral Medicine 271-2453

Lucien D. Rose, Ph.D.  
William J. Shaw, Psy.D.

### Cardiology 271-2733

Charles W. Cathey, M.D.  
Charles W. Robinson, M.D.  
Thomas R. Russell, M.D.  
Paul C. Houk, M.D.  
Alan R. Puls, M.D.

### Cardiovascular-

### Thoracic Surgery 271-2733

R. Mark Bodenhamer, M.D.

### Endocrinology 271-2717

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Ronald P. Painton, M.D.  
Jonathon L. Davis, M.D.

### Family Medicine 271-2717

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James R. Kimball, M.D.  
Robert E. Terrell, M.D.  
Paul D. Johnson, M.D.  
Jeffrey B. Cruzan, M.D.  
Constance A. Smiley, M.D.

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David A. Neumann, M.D.  
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Joe C. Zuerker, M.D.

### General Surgery 271-2749

Jay P. Cannon, M.D.  
Teresa M. Shavney, M.D.

### Hematology-Oncology 271-2744

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L. Michael Bowen, M.D.  
Gregory A. Parker, M.D.

### Hepatology 271-2747

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Anand B. Mahajan, M.D.

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Jennifer K. Nelson, M.D.

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### Orthopedic Surgery 271-2766

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David H. Cheatham, M.D.  
Andrea L. Key, M.D.  
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Martha A. Brehm, M.D.  
Maribel Diaz-Esquivel, M.D.  
Carol G. Lawrence, M.D.

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### Critical Care 271-2933

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Ruth G. Brush, M.D.

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rapidly and effectively<sup>4,5</sup>*
- *Dosage for adults with active  
duodenal ulcer is 300 mg once nightly  
(150 mg b.i.d. is also available)*

#### **References**

1. *USP DI Update*, September/October 1988, p 120.
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**AXID<sup>®</sup>**

nizatidine capsules

**Brief Summary.** Consult the package literature for complete information.

**Indications and Usage:** 1. *Active duodenal ulcer*—for up to eight weeks treatment. Most patients heal within four weeks.

2. *Maintenance therapy*—for healed duodenal ulcer patients at a reduced dosage of 150 mg h.s. The consequences of therapy with Axid longer than one year are not known.

**Contraindication:** Known hypersensitivity to the drug. Use with caution in patients with hypersensitivity to other H<sub>2</sub>-receptor antagonists.

**Precautions:** General—1. Symptomatic response to nizatidine therapy does not preclude the presence of gastric malignancy.

2. Dosage should be reduced in patients with moderate to severe renal insufficiency.

3. In patients with normal renal function and uncomplicated hepatic dysfunction, the disposition of nizatidine is similar to that in normal subjects.

**Laboratory Tests**—False-positive tests for urobilinogen with Multistix<sup>®</sup> may occur during therapy.

**Drug Interactions**—No interactions have been observed with theophylline, chloridiazepoxide, lorazepam, lidocaine, phenytoin, and warfarin. Axid does not inhibit the cytochrome P-450 enzyme system; therefore, drug interactions mediated by inhibition of hepatic metabolism are not expected to occur. In patients given very high doses (3,900 mg) of aspirin daily, increased serum salicylate levels were seen when nizatidine, 150 mg b.i.d., was administered concurrently.

**Carcinogenesis, Mutagenesis, Impairment of Fertility**—A two-year oral carcinogenicity study in rats with doses as high as 500 mg/kg/day (about 80 times the recommended daily therapeutic dose) showed no evidence of a carcinogenic effect. There was a dose-related increase in the density of enterochromaffin-like (ECL) cells in the gastric oxyntic mucosa. In a two-year study in mice, there was no evidence of a carcinogenic effect in male mice, although hyperplastic nodules of the liver were increased in the high-dose males as compared with placebo. Female mice given the high dose of Axid (2,000 mg/kg/day, about 330 times the human dose) showed marginally statistically significant increases in hepatic carcinoma and hepatic nodular hyperplasia with no tumoral increase seen in any of the other dose groups. The rate of hepatic carcinoma in the high-dose animals was within the historical control limits seen for the strain of mice used. The female mice were given a dose larger than the maximum tolerated dose, as indicated by excessive (30%) weight decrement as compared with concurrent controls and evidence of mild liver injury (transaminase elevations). The occurrence of a marginal finding at high dose only in animals given Axid<sup>®</sup> (nizatidine, Lilly)

an excessive and somewhat hepatotoxic dose, with no evidence of a carcinogenic effect in rats, male mice, and female mice (given up to 360 mg/kg/day, about 60 times the human dose), and a negative mutagenicity battery are not considered evidence of a carcinogenic potential for Axid.

Axid was not mutagenic in a battery of tests performed to evaluate its potential genetic toxicity, including bacterial mutation tests, unscheduled DNA synthesis, sister chromatid exchange, mouse lymphoma assay, chromosome aberration tests, and a micronucleus test.

In a two-generation, prenatal and postnatal fertility study in rats, doses of nizatidine up to 650 mg/kg/day produced no adverse effects on the reproductive performance of parental animals or their progeny.

**Pregnancy—Teratogenic Effects—Pregnancy Category C**—Oral reproduction studies in rats at doses up to 300 times the human dose and in Dutch Belted rabbits at doses up to 55 times the human dose revealed no evidence of impaired fertility or teratogenic effect; but, at a dose equivalent to 300 times the human dose, treated rabbits had abortions, decreased number of live fetuses, and depressed fetal weights. On intravenous administration to pregnant New Zealand White rabbits, nizatidine at 20 mg/kg produced cardiac enlargement, coarctation of the aortic arch, and cutaneous edema in one fetus, and at 50 mg/kg, it produced ventricular anomaly, distended abdomen, spina bifida, hydrocephaly, and enlarged heart in one fetus. There are, however, no adequate and well-controlled studies in pregnant women. It is also not known whether nizatidine can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Nizatidine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

**Nursing Mothers**—Studies in lactating women have shown that 0.1% of an oral dose is secreted in human milk in proportion to plasma concentrations. Because of growth depression in pups reared by treated lactating rats, a decision should be made whether to discontinue nursing or the drug, taking into account the importance of the drug to the mother.

**Pediatric Use**—Safety and effectiveness in children have not been established.

**Use in Elderly Patients**—Healing rates in elderly patients were similar to those in younger age groups as were the rates of adverse events and laboratory test abnormalities. Age alone may not be an important factor in the disposition of nizatidine. Elderly patients may have reduced renal function.

**Adverse Reactions:** Clinical trials of varying durations included almost 5,000 patients. Among the more common adverse events in domestic placebo-controlled trials of over 1,900 nizatidine patients and over 1,300 on placebo, sweating (1% vs 0.2%), urticaria (0.5% vs <0.01%), and somnolence (2.4% vs 1.3%) were significantly more common with nizatidine. It was not possible to determine whether a variety of less common events was due to the drug.

**Hepatic**—Hepatocellular injury (elevated liver enzyme tests or alkaline phosphatase) possibly or probably related to nizatidine occurred in some patients. In some cases, there was marked elevation (>500 IU/L) in SGOT or SGPT and, in a single instance, SGPT was >2,000 IU/L. The incidence of elevated liver enzymes overall and elevations of up to three times the upper limit of normal, however, did not significantly differ from that in placebo patients. Hepatitis and jaundice have been reported. All abnormalities were reversible after discontinuation of Axid.

**Cardiovascular**—In clinical pharmacology studies, short episodes of asymptomatic ventricular tachycardia occurred in two individuals administered Axid and in three untreated subjects.

**CNS**—Rare cases of reversible mental confusion have been reported.

**Endocrine**—Clinical pharmacology studies and controlled clinical trials showed no evidence of antiandrogenic activity due to nizatidine. Impotence and decreased libido were reported with equal frequency by patients on nizatidine and those on placebo. Gynecomastia has been reported rarely.

**Hematologic**—Fatal thrombocytopenia was reported in a patient treated with nizatidine and another H<sub>2</sub>-receptor antagonist. This patient had previously experienced thrombocytopenia while taking other drugs. Rare cases of thrombocytopenic purpura have been reported.

**Integumental**—Sweating and urticaria were reported significantly more frequently in nizatidine- than in placebo-treated patients. Rash and exfoliative dermatitis were also reported.

**Hypersensitivity**—As with other H<sub>2</sub>-receptor antagonists, rare cases of anaphylaxis following nizatidine administration have been reported. Because cross-sensitivity among this class has been observed, H<sub>2</sub>-receptor antagonists should not be administered to those with a history of hypersensitivity to these agents. Rare episodes of hypersensitivity reactions (eg, bronchospasm, laryngeal edema, rash, and eosinophilia) have been reported.

**Other**—Hyperuricemia unassociated with gout or nephrolithiasis was reported. Eosinophilia, fever, and nausea related to nizatidine have been reported.

**Overdosage:** Overdoses of Axid have been reported rarely. If overdosage occurs, activated charcoal, emesis, or lavage should be considered along with clinical monitoring and supportive therapy. Renal dialysis for four to six hours increased plasma clearance by approximately 84%.

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JOURNAL Oklahoma State Medical Association (ISSN 0030-1876) (USPS 285-000) is the official publication of the Oklahoma State Medical Association and is published monthly under the direction of the OSMA Board of Trustees at 601 Northwest Expressway, Oklahoma City, OK 73118. Second class postage paid at Oklahoma City, OK 73125.

POSTMASTER: Send address changes to JOURNAL Oklahoma State Medical Association, 601 Northwest Expressway, Oklahoma City, OK 73118.

Subscription to the JOURNAL is included in membership dues. All other subscriptions are \$30 per year. Single issues are \$3 per copy, prepaid, subject to availability.

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# JOURNAL

OKLAHOMA STATE MEDICAL ASSOCIATION

JULY 1990

VOL. 83, NO. 7

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## ABOUT THE COVER



A one-of-a-kind beauty contest capped the festivities at this year's inaugural banquet, while it was business as usual in the House of Delegates. OSMA Annual Meeting proceedings begin on page 301.

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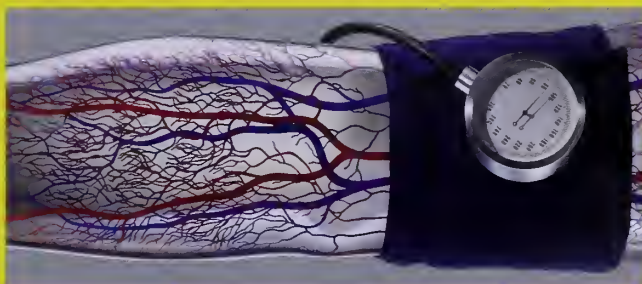
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In mild to moderate hypertension

\*Lower initial doses of 120 mg a day may be warranted in patients who have an increased response to verapamil (eg, the elderly or those of small stature)

### BRIEF SUMMARY

**Contraindications:** Severe LV dysfunction (see **Warnings**), hypotension (systolic pressure < 90 mm Hg) or cardiogenic shock, sick sinus syndrome (if no pacemaker is present), 2nd- or 3rd-degree AV block (if no pacemaker is present), atrial flutter/fibrillation with an accessory bypass tract (eg, WPW or LGL syndromes), hypersensitivity to verapamil.

**Warnings:** Verapamil should be avoided in patients with severe LV dysfunction (eg, ejection fraction < 30%) or moderate to severe symptoms of cardiac failure and in patients with any degree of ventricular dysfunction if they are receiving a beta-blocker. Control milder heart failure with optimum digitalization and/or diuretics before Calan SR is used. Verapamil may occasionally produce hypotension. Elevations of liver enzymes have been reported. Several cases have been demonstrated to be produced by verapamil. Periodic monitoring of liver function in patients on verapamil is prudent. Some patients with paroxysmal and/or chronic atrial flutter/fibrillation and an accessory AV pathway (eg, WPW or LGL syndromes) have developed an increased antegrade conduction across the accessory pathway bypassing the AV node, producing a very rapid ventricular response or ventricular fibrillation after receiving I.V. verapamil (or digitalis). Because of this risk, oral verapamil is contraindicated in such patients. AV block may occur (2nd- and 3rd-degree, 0.8%). Development of marked 1st-degree block or progression to 2nd- or 3rd-degree block requires reduction in dosage or, rarely, discontinuation and institution of appropriate therapy. Sinus bradycardia, 2nd-degree AV block, sinus arrest, pulmonary edema and/or severe hypotension were seen in some critically ill patients with hypertrophic cardiomyopathy who were treated with verapamil.

**Precautions:** Verapamil should be given cautiously to patients with impaired hepatic function (in severe dysfunction use about 30% of the normal dose) or impaired renal function, and patients should be monitored for abnormal prolongation of the PR interval or other signs of overdosage. Verapamil may decrease neuromuscular transmission in patients with Duchenne's muscular dystrophy and may prolong recovery from the neuromuscular blocking agent vecuronium. It may be necessary to decrease verapamil dosage in patients with attenuated neuromuscular transmission. Combined therapy with beta-adrenergic blockers and verapamil may result in additive negative effects on heart rate, atrioventricular conduction and/or cardiac contractility, there have been reports of excessive bradycardia and AV block, including complete heart block. The risks of such combined therapy may outweigh the benefits. The combination should be used only with caution and close monitoring

Decreased metoprolol clearance may occur with combined use. Chronic verapamil treatment can increase serum digoxin levels by 50% to 75% during the first week of therapy, which can result in digitalis toxicity. In patients with hepatic cirrhosis, verapamil may reduce total body clearance and extrarenal clearance of digoxin. The digoxin dose should be reduced when verapamil is given, and the patient carefully monitored. Verapamil will usually have an additive effect in patients receiving blood-pressure-lowering agents. Disopyramide should not be given within 48 hours before or 24 hours after verapamil administration. Concomitant use of flecainide and verapamil may have additive effects on myocardial contractility, AV conduction, and repolarization. Combined verapamil and quinidine therapy in patients with hypertrophic cardiomyopathy should be avoided, since significant hypotension may result. Concomitant use of lithium and verapamil may result in a lowering of serum lithium levels or increased sensitivity to lithium. Patients receiving both drugs must be monitored carefully. Verapamil may increase carbamazepine concentrations during combined use. Rifampin may reduce verapamil bioavailability. Phenobarbital may increase verapamil clearance. Verapamil may increase serum levels of cyclosporin. Concomitant use of inhalation anesthetics and calcium antagonists needs careful titration to avoid excessive cardiovascular depression. Verapamil may potentiate the activity of neuromuscular blocking agents (curare-like and depolarizing); dosage reduction may be required. Adequate animal carcinogenicity studies have not been performed. One study in rats did not suggest a tumorigenic potential, and verapamil was not mutagenic in the Ames test. Pregnancy Category C. There are no adequate and well-controlled studies in pregnant women. This drug should be used during pregnancy, labor, and delivery only if clearly needed. Verapamil is excreted in breast milk; therefore, nursing should be discontinued during verapamil use.

**Adverse Reactions:** Constipation (7.3%), dizziness (3.3%), nausea (2.7%), hypotension (2.5%), headache (2.2%), edema (1.9%), CHF, pulmonary edema (1.8%), fatigue (1.7%), dyspnea (1.4%), bradycardia: HR < 50/min (1.4%), AV block: total 1°, 2°, 3° (1.2%), 2° and 3° (0.8%), rash (1.2%), flushing (0.6%), elevated liver enzymes. The following reactions, reported in 1.0% or less of patients, occurred under conditions where a causal relationship is uncertain: angina pectoris, atrioventricular dissociation, chest pain, claudication, myocardial infarction, palpitations, purpura (vasculitis), syncope, diarrhea, dry mouth, gastrointestinal distress, gingival hyperplasia, ecchymosis or bruising, cerebrovascular accident, confusion, equilibrium disorders, insomnia, muscle cramps, paresthesia, psychotic symptoms, shakiness, somnolence, arthralgia and rash, exanthema, hair loss, hyperkeratosis, macules, sweating, urticaria, Stevens-Johnson syndrome, erythema multiforme, blurred vision, gynecostasia, increased urination, spotty menstruation, impotence.

12/21/89 • P90-W198V

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## Longitudinal Insurance

Current health policy discussions promote rationing of medical care in the United States, and both physicians and citizens are aghast. In this society, universal access to the finest medical care is a coveted, quixotic ideal. While most nations have some overt health care rationing, the United States officially rejects health care "rationing," and ignores the erratic portioning inherent in our bastardized medical economics.

Medical costs are climbing, and political America now proclaims that further increase is forbidden. The US Congress studies ways to mandate "acceptable practice parameters," another means of rationing. The Oregon legislature has "prioritized" its Medicaid procedures, and urges a national priority policy. Medicare challenges the "medical necessity" of thousands of claims, and denies claims by the hundreds — an *ex post facto* rationing device.

Any government spending tax dollars in rationing goods and services must warrant that necessities will be supplied, and guarantee that only superfluties are eliminated. But then comes a crucial question: What part of today's US medical care is unnecessary and a luxury to be eliminated? In a democratic republic who will determine the definition of "unnecessary" medical care, the patient? the physician? the pathologist? the HCFA statistician? a committee of friends and neighbors? Congress? or a bloc party, as in Communist China? The lengthy list suggests the complexity of the ambiguity created when US free market medical care became disrupted by Medicare assumption of patient payment decisions.

Historically, in the ante-Medicare Age of medical economics, the patient or patient's family had the decision on the duration and the complexity of the chosen treatment. There were no "medically unnecessary" treatments in that era, and there was no rationing necessary as patient consent set the treatment limits.

Now we, as a nation, must unscramble the chaos that has resulted from government interference in medical economics, at the same time that technological improvements and a graying population increase

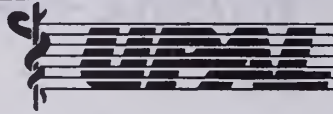
the cost of medical care. Commercial insurance has fully exploited peer group risk sharing and cost shifting, and these devices now fail to fund the system. In the ante-Medicare Age, spontaneous altruism cared better for the indigent and the uninsured than does the present chaotic system.

In any economic system, the consumer must pay for what is consumed. I believe it is time for the United States to return to a patient self-determination medical insurance system, with financially solvent citizens responsible for paying for their own medical care rather than asking their friends and neighbors to pay for it. An individual, longitudinal risk-spreading mechanism is needed to replace the present inadequate insurance devices that rely on peer groups, friends, and neighbors.

The truly free US citizen needs an individual medical insurance account somewhat similar to a tax-sheltered Individual Retirement Account. A range of options, basic to sumptuous, could then be selected by the individual and appropriately funded. Such a system should be funded during the individual's healthy and working years as a tax-sheltered Health Cost Trust. A generation of citizens would be required for the conversion, and of course, those becoming disabled before completion of funding would need a basic medical account paid by the government (friends and neighbors).

Such a system of longitudinal individual insurance could permit the United States a gradual return, over a generation, to a free market medical economic system with patient responsibility and control of medical payment decisions. Congress and the medical bureaucrats must be eliminated from the sickroom where they now so ineptly preside. A new and different health care funding system must soon be invented for the United States. Let us devise a system that returns the payment decision to the patient and scientific autonomy to the physician.

*Ray V. McIntyre, M.D.*



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Dennehy, Timothy H., M.D.	Holland, William T., M.D.	Minor, Dwane B., M.D.	VanSchoyck, Patrick, M.D.
Dilger, J. Thomas, Jr., M.D.	Horowitz, Leon, M.D.	Mowry, John D., M.D.	Venugopal, Annie, M.D.
Dillman, Robert E., M.D.	Hudson, Robert J., M.D.	Murphy, Arthur J., M.D.	Vonhartitzsch, Barry, M.D.
Dixon, Richard E., M.D.	Hunter, Gerard J., M.D.	Murphy, Linda, M.D.	Vosburgh, John M.D.
Dolan, C. Terrence, M.D.	Hunt, Shirlene, M.D.	Myers, Rodney L., M.D.	Ward, John W., M.D.
Doran, C.K., M.D.	Hurewitz, David S., M.D.	Nash, Charles H., M.D.	Watt, Richard H., M.D.
Drabek, Greg, M.D.	Hutton, James P., M.D.	Neal, R. Wayne, M.D.	Weiss, Mark J., M.D.
Dunaway, Don, D.O.	Jacobs, Lawrence, M.D.	Nelson, Franklin S., M.D.	Wenger, Bruce E., M.D.
Durick, William, J., M.D.	Jenkins, David W., M.D.	Newsome, Susan L., M.D.	West, Randal M.D.
Easley, James, M.D.	Jennings, John, M.D.	Niebergall, Robert, M.D.	Wetzel, Fred, M.D.
Edwards, David L., Jr., M.D.	Johnson, Gail I., M.D.	Olson, Darwin D., M.D.	Whitlock, Boyd O., M.D.
Edwards, Jeanne, M.D.	Johnson, James A., M.D.	Pagel, Warren, M.D.	Wilkerson, Mike, M.D.
Eisen, Barry, M.D.	Jones, Dwayne D., M.D.	Palik, Emil, M.D.	Wiemar, Kenneth, M.D.
Emanuel, David L., M.D.	Josephson, John F., M.D.	Palmer, James O., M.D.	Yearly, Edwin C., M.D.
Exon, Walter, M.D.	Karasek, Dennis, M.D.	Perryman, Philip W., Jr., M.D.	Young, Timothy R., M.D.
Farmer, Charles A., M.D.	Kasprisin, Duke, M.D.	Pfantsiel, Carl E., Jr., M.D.	Zanetakis, Ellen I., M.D.
Ferris, Samuel, M.D.	Katz, Stewart, M.D.	Phillips, John W., Jr., M.D.	Zanovich, Terry L., M.D.
Fielding, Allan S., M.D.	King, Gregory	Plost, Gerald N., M.D.	Zekauskas, Raymond A., M.D.
Fitter, William F., M.D.	Knox, C. Frank, M.D.	Powell, Jack D., M.D.	Zoller, Robert P., M.D.
Fleming, Joseph F., M.D.	Kramer, John, M.D.	Powell, Terry D., M.D.	
Fore, Frank N., M.D.	Kriemeyer, George, M.D.	Raines, Richard D., M.D.	

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## Pull Out the Pens!

If you care about the practice of medicine in Oklahoma or the state itself you may need to write three letters this year. This is the first.

The Health Care Financing Administration (HCFA) has published *proposed* rules for laboratories in physicians' offices, rural hospitals, and other practice settings. Possibly unknowingly, these *proposed* rules would close most rural hospitals and office laboratories. NOT because of the quality of work performed. NOT because of any provision of law. SOLELY because of personnel work rules that would make union bosses blush.

Specifically, the *proposed* rules would require a doctoral level scientist (not MD or DO) or a board certified pathologist as a director and "technical supervisor" at each testing site where definitive laboratory testing is done. (By Medicare usage, a director must be on-site ½ day/week and can direct no more than three laboratories.) Further, an experienced registered medical technologist also would be mandated. These archaic, make-work personnel rules were lifted substantially from the current standards for independent laboratories. They were placed there because of an effective lobbying campaign by the medical technologists assisted by national commercial laboratories — NOT pathologists. Pathologists have been seeking relief from these federally mandated union-style work rules for years.

The *proposed* rules would also extend current hospital fire safety regulations to office laboratories (where they would supersede local fire codes and cause considerable needless expense). Quick trivia — Who can name the last person injured in an office laboratory fire? I cannot think of any in the last 21 years.

Are there other concerns? Of course. The *proposed* rules will require quality control, proficiency testing, procedure manuals and documentation of good performance in all sites at which definitive testing is done. These other rules can be surrounded and met



with a modicum of effort and affordable expense. The personnel and fire rules are the killers.

Those who have followed these *proposed* regulations may ask — what about "waivered" and "less complex" tests? They are provided for in the regulations but help virtually no one. One instrument manufacturer is pressing "waivered tests" as a solution. They are not! The tests are extremely limited in number, would not meet the needs of ANY hospital or of the average physician's laboratory, and would have to be confirmed by a laboratory that meets all the rules *before* any therapeutic intervention. There is no possibility that these provisions can be expanded to meet rural hospital or most physician needs.

## What To Do

Whether or not you operate a laboratory, these *proposed* rules affect you. They will devastate rural Oklahoma and devastate many urban physicians.

They must be changed!

They can be changed!

Today, write the Health Care Financing Administration using the salutation below, and copy your letter to your Senators and Representatives (addresses and salutations, below). Ask your spouse to write. Insist that each of your office employees, your hospital administrator, and each of the board members of your hospital write. HCFA counts letters.

Your letter should be brief. It should:

- (1) Identify you and your practice;
- (2) State that the proposed rules on clinical laboratories would close (your office, your hospital, your referral physician's office, rural Oklahoma — whatever is correct in your setting);
- (3) Note the adverse consequences to your patients;
- (4) Point out that closure would result from the proposed personnel rules and prohibitive expense would result from the fire safety rule;
- (5) Explain that current Medicare-approved hospital laboratory requirements do NOT require especially credentialed personnel and that there are few



if any examples of patient harm as a result of poor testing in our hospital laboratories;

(6) Suggest that current Medicare hospital laboratory personnel requirements be substituted for those in the proposed rule and that hospital fire safety requirements be applicable only to laboratories located within in-patient facilities;

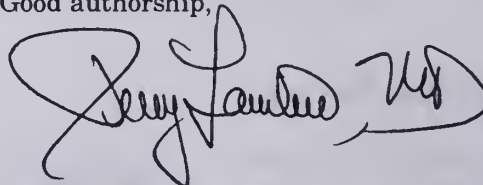
(7) State that other comments on these proposed rules will be coming from the OSMA and other organizations and request that they be read and considered.

(8) Close.

Your letter may not be read, but it will definitely be put in a stack and counted (or weighed). Remember that medical technologists, and commercial laboratories that hope to capture your offices and hospitals, will be writing, too. Following HCFA's previous intellectual approach to these regulations, the heaviest stack wins.

IT IS TERRIBLY IMPORTANT FOR YOU TO WRITE TODAY!

Good authorship,



Perry A. Lambird, MD

TO CONGRESS

The Honorable Don Nickles  
The United States Senate  
Washington, DC 20510

The Honorable David L. Boren  
The United States Senate  
Washington, DC 20510

The Honorable (name of your representative)  
US House of Representatives  
Washington, DC 20515

TO HCFA

Health Care Financing Administration  
Department of Health and Human Services  
Attention: HSQ-176  
PO Box 26676  
Baltimore, MD 21207

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# 1990

## ANNUAL



## MEETING



## PROCEEDINGS

MARRIOTT HOTEL  
OKLAHOMA CITY, MAY 3-5

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Annual Meeting photographs by Ed Kelsay (326, 357) and Susan Records





## OSMA House of Delegates REPORT OF THE PRESIDENT

John R. Alexander, MD

**M**r. Speaker, fellow members, and guests of the House of Delegates: The infamous Yogi Berra said, "It's not over till it's over." Well, it's over, and it went pretty fast! In fact, a lot faster than I thought. This year was a challenge — it was hard work; at times it was frustrating, even discouraging; but overall it was gratifying and, to a large extent, fun. Being the President of OSMA is meetings — with the governor, senators, representatives, DHS officials, Health Sciences Center officials, OU leadership, councils, committees, staff, and on and on. It's interesting in that the problems are different from patient care problems, although most of the decisions ultimately affect our patients; however, like patient care, you do have to make intuitive decisions based on laboratory information, though not chemically based. I found that some of the best help comes from my visits to county medical societies, listening to the concerns of doctors on the front line.

The "hassle factor" is real, and the frustration level is high. The government protocol for the practice of medicine doesn't sit well with most doctors. The manipulation of codes, procedures, and diagnoses to receive

equitable reimbursement under many third-party programs is abhorrent to physicians. Commercial review of patient care for the purpose of limiting utilization and costs is not popular, either. Even our own Foundation for Peer Review which we created is losing some support from physicians who helped start the program.

On the federal scene it seems it's one step forward and two steps back. We worked hard to get the RBRVS approved for Medicare reimbursement without the expenditure targets and other onerous and compromising amendments, only to find that last-minute additions restricted the ability of physicians to balance bill beyond 125% of the Medicare allowable beginning in 1991. The RBRVS phase-in begins in 1992. The one-year gap could hurt many of our members who practice in areas and specialties that have historically low allowables. The very law that was designed to help doctors who have been discriminated against as the result of faulty statistical projections could further penalize them because of an erroneous timetable.

The State Employees PPO also has created a lot of anger, some of which has been directed at the Health Sciences Center and our teaching physi-

cians. The rural-urban discrepancy in physician reimbursement continues to spawn intense dissension between doctors and our medical organizations, as is evidenced by a number of resolutions we will consider today and tomorrow.

One would have to be more than optimistic to report that all is well in the House of Medicine today.

As vexatious and frustrating as these problems are, they have one thing in common: they are solvable.

As President, I was personally involved with our congressional delegation in the fight to stop the expenditure targets and for a short time it appeared our opposition might lead to loss of the whole RBRVS proposal. Because state medical societies and the AMA and, in fact, the entire federation were effective in working with their federal legislators, we were able to turn that issue around.

The same is true of the State PPO. Our medical association recognized the unfairness of that system, and we started raising questions which led to a legislative study; I served on the task force. A new plan will be implemented in July that will be open to all physicians and hospitals with a fair reimbursement schedule for both.

Dr. Gary Paddock of Ada brought to our attention the potential impact of Medicare's "125% Rule." We gathered data and talked to the AMA, some specialty societies, and several state societies. The result has been testimony before Congress from AMA and AAFP against the new law, and a coalition of about 10 states who have senators on the Senate Finance Committee working together to delay implementation of the rule.

OSMA can't set policy for Medicare reimbursement, but we can and do influence Medicare on discretionary issues. We work directly with Aetna's local administrator and their medical director (who is an OSMA member) to ensure that our members are treated equitably on disputed issues. However, we can and do influence policy for others. There is a resolution before the House requesting PLICO to implement a single-zone reimbursement system. Early discussions at PLICO indicate that this is a feasible and practical objective. Such a system has already been implemented in the Medicaid program, and the new State Employees PPO will utilize a single-zone payment system. These steps, though small, could be the beginning of a change in third-party reimbursement plans.

We formed a new committee this year. The OSMA/OUHSC Liaison Committee is jointly chaired by Ed Brandt and me. We are discussing the issues between OSMA and the medical school, and our goal is to foster programs that attract faculty to OSMA and OSMA members to OUHSC. The committee has already set some specific goals to enhance the quantity and quality of our student applicant pool and to encourage more graduates into the primary care specialties. There are major problems in the financing of medical education, and our committee will attempt to address these in future meetings.

Almost three years ago, Tulsa County Medical Society recognized the need to assist our elder citizens with limited incomes gain better access to physicians' services. The result was the implementation of the VIP Program which has been set up statewide and become a model for similar programs nationwide. Since the onset of programs like the Tulsa model, no state legislature has passed

mandatory assignment laws.

The examples I've cited are a few of the many that effective medical organizations accomplish that can make your life easier. Regardless of its faults, the Federation of American Medicine is largely responsible for the freedoms we have today to care for our patients in the manner we think best and also for our prosperity. While both seem to get trampled on from time to

time, the truth of the matter is we do pretty well.

As I said earlier, perhaps the House of Medicine is not in perfect order, but in the words of a loyal Cubs fan, "Maybe Next Year." Let's keep trying.

Respectfully submitted,  
John R. Alexander, MD  
President

## OSMA House of Delegates REPORT OF THE PRESIDENT-ELECT

Perry A. Lambird, MD

**T**he past year has been both rewarding and sobering.

It has been rewarding in the opportunity to work closely with John Alexander and the other officers, the Board, and the staff of the Oklahoma State Medical Association. We are so deeply in their debt. They have provided exemplary leadership, given generously of themselves, and bequeathed to us a strong and dynamic organization. The opportunity to know and work with these men and women has been a precious one.

The past year has also been sobering, however, for much that has been accomplished by our predecessors is being threatened by the actions of others and occasionally by our own deeds.

The most cloudy of crystal balls can still display the externally generated, immediate problems we face in Oklahoma. These problems include: extensive economic damage as the Resource Based Relative Value Scale (RBRVS) is implemented; further decay of our rural hospitals and, with them, a major part of our state's population base; stringent regulations on laboratories with adverse conse-

quences for rural hospitals, physicians' offices, and our patients who need cytologic studies; and the external regulation of office-based practice.

The RBRVS is more likely to prove a problem than a panacea for Oklahoma. While the "work" component may prove favorable for those of us in primary care, the other two components of RBRVS reimbursement are likely to prove tragic for everyone. Malpractice liability costs form the second leg of the RBRVS. Because of our astonishing success with PLICO, our reward will be a payment for this component of about one-half that of the 49th ranking state. We have already seen the application of the third "practice cost" component of the RBRVS. Adjustment of our radiologists' Medicare allowances this past January using "practice costs" dropped us to a three-way tie for the lowest payment rates in the nation. Radiologists in all the surrounding states receive 20-30% more. RBRVS is a problem of great magnitude.

Rural hospitals, with Medicare and Medicaid admission percentages of 70% or more, cannot survive without significant payment changes both



for hospitals and the physicians of their medical staffs.

Regulations under the Clinical Laboratory "Improvement" Amendments of 1988 will increase costs, may cause entire hospitals and many physician office laboratories to close, and will certainly result in \$30-\$50 pap smears with a turn around time measuring months. It will not be pretty! These regulations must be made to conform to common sense and reality, scarce commodities in Washington, DC.

Finally, we will see a continued expansion of regulations and controls on our office-based practices. PRO review, EPA, OSHA, HCFA, managed care systems, and others will be much more evident and intrusive. We will not like it.

There are some steps we can undertake to blunt, modulate, or even eliminate these ogres now rising from the swamps of bureaucracy. But to attempt a course of change is consigned to failure if we cannot work together, sharing the risks and the possible rewards.

At the top of our concerns should be the American Medical Association. We need desperately to have all states in the United States unified. Every single loss of a member of the AMA weakens us nationally. It is critically important that the AMA be strong, now. It is within the AMA that we can work out our differences collegially and present a united front to Washington and industry. The AMA will carry our standard, but we must support it with all that we have. Never, ever forget, we *are* the AMA.

Next, we need to be enthusiastic messengers to our colleagues at home about our own Oklahoma State Medical Association. One can travel the length and the breadth of this great state and hear ad seriatum that Oklahoma County, or Tulsa, or the rural areas dominate our association to the disadvantage of the speaker (who is always from a non-dominant area). This teaches three things. First, all physicians are hurting. Second, our association is doing an excellent job of balancing competing interests, as this House of Delegates is doing today. Third, we who serve the association, and in particular all of us as delegates, are failing to make clear at home that this is *our* association. We, all of us,



OSMA President John R. Alexander, MD, Tulsa, passes the gavel to his successor, Perry A. Lambird, MD, Oklahoma City.

are the AMA. We must resolve our differences here, and go forth to the world united.

Assuming that this House will exercise both judgment and wisdom in strengthening our role within the AMA and in reconciling the reconcilable within our state, there is an action plan with which to attach our immediate common problems.

First, we must initiate a coalition of patients, hospitals, communities, and physicians to demand (not ask but demand) that Oklahoma physician reimbursement under the RBRVS not be reduced to that of a third world, banana republic, barefoot pseudo doctor. Steps have been taken already to prepare for such a coalition. It will be facilitated greatly by an active public relations campaign by our association and, I hope, by the participation of our dynamic and effective auxiliary. I will name a task force to accomplish this urgently needed program.

Second, we need a watchdog over Aetna as the RBRVS conversion takes place. With your new president-elect, I will name a long-term, ad hoc committee to serve just that role.

Third, through our strong AMA delegation, we must convince our colleagues throughout the United States that we of the AMA must press ahead to limit governmental damage from

either regulations or reimbursement. We must promote Health Access America. We must seek medical control of practice guidelines. We must find positions from which we can speak with unity. And we must remain united.

Let it be clearly understood that war upon us has been declared, and that seige forces are gathering on the borders of Oklahoma and American medicine. The armament — computers. The ammunition — flawed data. The logistical support — facile theories fashioned from archaic, crumbling, statist philosophy. The army — an egregious bureauracy. The air force — venal politicians. And the fifth column — those who would weaken organized medicine. The enemy is powerful and tenacious. But as history has proved repeatedly, a dedicated, committed, united and determined population confronted by vastly superior forces can command victory.

Let us leave here today having forged a commitment to that victory, a commitment to the future of medicine and a commitment to the health of generations yet unborn. We can do no less.

Respectfully submitted,  
Perry Lambird, MD  
President-Elect



# Minutes OSMA House of Delegates OPENING SESSION

Friday, May 4, 1990, 9:00 AM



Norman L. Dunitz, MD, Tulsa, stops for a credentials check before entering the House of Delegates.

## I. Call to Order and Invocation

The House of Delegates convened its 84th Annual Session at the Oklahoma City Marriott Hotel on May 4, 1990. Speaker Larry L. Long, MD, called the meeting to order at 9:15 AM.

Elvin M. Amen, MD, Bartlesville, OSMA Past President, delivered the invocation following observance of the National Anthem.

## II. Report of the Credentials Committee

Billy D. Dotter, MD, Okeene, Credentials Committee Chairman, announced that a quorum was present.

## III. Introductions

Doctor Long introduced those at the head table: John R. Alexander, MD, President; Perry A. Lambird, MD, President-Elect; Billy Dale Dotter, MD, Vice-President; Sara R. DePersio, MD, new Chair, Board of Trustees; Victor L. Robards, Jr., MD, Vice-Speaker of the House; Mr. David Bickham, Executive Director; and Mrs. Bobbie Brown and Mrs. Toni Leverett, Recording Secretaries.

Doctor Long then introduced and welcomed the following special guests: OSMA Past Presidents Elvin M. Amen, MD; Ed L. Calhoon, MD; M. Joe Crosthwait, MD; Norman L. Dunitz, MD; J. B. Eskridge II, MD; C. S. Lewis, Jr., MD; Marvin K. Margo, MD; John A. McIntyre, MD; Ray V. McIntyre, MD; Floyd F. Miller, MD; James B. Pitts, Jr., MD; and Medical

Students Gale Joslin, Brad Stephens, Jonathan Drummond, and Alexa Garner.

## IV. Approval of the Minutes of the 1989 Annual Meeting

Doctor Long noted these minutes were published in the July 1989 issue of the OSMA JOURNAL. There being no objections, the Chair stated the minutes were approved as published.

## V. Presentations

**A. AMA-ERF** Doctor Long recognized Mrs. Maureen Bynum, outgoing Auxiliary President, to introduce Mrs. Sandra Mitchell, Chair of the Health Projects Committee of the AMA Auxiliary, from Kansas City, Missouri, for her comments.

Mrs. Mitchell noted she works full-time for her husband, a urologist, and brings greetings from the more than 75,000 members of the AMA Auxiliary. One of the themes this past year, she explained, is unity, and she stressed its importance in conjunction with purpose and action. Mrs. Mitchell also stated it is crucial for physicians and spouses to work as a team.

Mrs. Mitchell discussed the AMA Auxiliary's involvement with teenage drug abuse and pregnancy programs, and noted the AMA-ERF has received \$2 million in contributions toward medical education for those who would otherwise not be able to attend. She commended the physicians for their commitment to organized medicine

and applauded the OSMA Auxiliary for superior work done in the various county societies.

Mrs. Nora White, OSMA Auxiliary President-Elect, was then introduced by Mrs. Bynum. Mrs. White expressed her thanks for the lovely room accommodations and flowers and said she is looking forward to her year as President.

Mrs. Bynum announced this year's Auxiliary theme has been "Physician Partnerships — Always a Team Effort." The OSMAA, she noted, has been involved in a variety of activities this year. Rather than having a Medicine Day at the State Capitol, two Political Education Workshops took place in March, one in Oklahoma City, and one in Tulsa. Mrs. Bynum said that health projects conducted across the state by county auxiliaries included anti-smoking and drunk-driving programs, child abuse prevention efforts and first-aid education, health and science fairs, and adolescent pregnancy, drug abuse, and suicide prevention programs.

Mrs. Bynum announced that the OSMA Auxiliary is extremely proud to have Sherry Strebel as the first nominated President-Elect to the American Medical Association Auxiliary.

In closing, Mrs. Bynum expressed her appreciation for the support and encouragement of Dr. John Alexander, the Board of Trustees and the OSMA staff and thanked the group for the

opportunity of working together to enhance the image of medicine.

Mrs. Bynum then introduced Mrs. Pat Bass, AMA-ERF State Chairman. Mrs. Bass presented the following checks to the medical colleges in Oklahoma for their medical school excellence funds and medical student assistance funds:

\$3,693.00 was presented to Edward J. Tomsovic, MD, Dean of the University of Oklahoma Tulsa Medical College.

\$27,753.87 was presented to Edward N. Brandt, Jr., MD, Executive Dean of the University of Oklahoma College of Medicine.

Doctor Brandt then made some brief remarks to the House and thanked the OSMA Auxiliary members for all their work in enabling medical students to graduate with considerably less debt.

**B. Dr. George H. Hulsey** Doctor Long recognized Dr. Chester L. Bynum, Norman, who presented to Dr. George H. Hulsey, Norman, Chairman of the National Wildlife Federation, a special plaque for his numerous efforts in environmental concerns. Doctor Hulsey expressed his appreciation and at the same time offered a challenge to Oklahoma physicians, spouses, and medical students to become informed about environmental issues and take the lead in improving our environment. Doctor Hulsey announced the OSMA has formed an Environmental Committee. He also urged that Oklahoma hospitals initiate recycling programs and stressed that assuming a leadership role in the "decade of the environment" is crucial.

**C. Charlotte S. Leebron Memorial Trust Fund Award** Dr. Ray V. McIntyre, OSMA JOURNAL Editor-in-Chief, was recognized to present the winner of the Charlotte S. Leebron Memorial Trust Fund Award for the Best Scientific Paper published in the JOURNAL for 1989. Doctor McIntyre announced that this year's award goes to Dr. Warren M. Crosby for his article, "Twin Pregnancy: An Appraisal of Management Options," which was published in the October, 1989 issue. Doctor Crosby expressed his thanks.

**D. A. H. Robins Community Service Award** Doctor Long recognized Dr. Jay A. Gregory, Muskogee, new Vice-Chairman of the OSMA Board of Trustees, to present this pres-

tigious award to Dr. Virgil Dale Matthews of Muskogee. Mr. Gary Jones, A. H. Robins Representative, also assisted in the presentation of the award. Doctor Matthews expressed his sincere appreciation in being this year's recipient.

**E. Donald J. Blair Friend of Medicine Award** Dr. James B. Pitts, OSMA Past President, was recognized to present this award to Mr. Lee Allan Smith of Oklahoma City. Mr. Smith expressed his thanks. Doctor Long also recognized Mr. George Short, Defense Attorney for PLICO, who had placed Mr. Smith's name in nomination.

## VI. Remarks of the Speaker

Doctor Long cited the appointees to the following committees to assist in the conduct of the meeting:

### *Parliamentarian*

Floyd F. Miller, MD, Tulsa

### *Credentials Committee*

Billy D. Dotter, MD, Okeene,

Chairman

Arthur E. Schmidt, MD,

Oklahoma City

John B. Nettles, MD, Tulsa

### *Tellers*

Chester L. Bynum, MD, Norman

Ray L. Cornelison, Jr., MD,

Midwest City

G. Lance Miller, MD, Tulsa

### *Sergeant-at-Arms*

Joe S. Hester, MD, Muskogee

### *Reference Committee I*

Richard L. Hromas, MD, Enid,

Chairman

Ralph L. Buller, MD, Hydro

Stephen K. Cagle, MD,

Oklahoma City

Ray L. Cornelison, Jr., MD,

Midwest City

Douglas C. Hubner, MD, Tulsa

Steven D. Jimerson, MD, Norman

Edward J. Tomsovic, MD, Tulsa

### *Reference Committee II*

William O. Coleman, MD,

Oklahoma City, Chairman

Rosemary Bellino, MD, Lawton

David J. Confer, MD, Tulsa

Robert M. Gold, MD, Tulsa

Nick Knutson, MD, Oklahoma City

Frederick A. Kuhn, MD,

Oklahoma City

Richard A. McKinne, MD, Muskogee

### *Reference Committee III*

Charles K. Harmon, MD, Tulsa,

Chairman

Thomas D. Howard, MD, Idabel

J. David Lackey, MD, Tulsa

Gordon D. Lantz, MD, Tulsa

Clarence Robison, Jr., MD,

Oklahoma City

Tom H. Shurley, MD, Altus

Wayne W. Wasemiller, MD,

Oklahoma City

Doctor Long announced the reference committees will meet directly after the Opening Session, at approximately 10:30 AM. He also referred the delegates to the late items of business accepted by the Board of Trustees for consideration by the House and announced that Resolution 17 has been moved from Reference Committee II to Reference Committee I.

It was moved, seconded and carried to accept all late resolutions for consideration.

Doctor Long noted the House of Delegates material included five Resolutions of Commendation for Drs. J. B. Eskridge III; Arnold G. Nelson; Victor L. Robards, Jr.; James B. Pitts, Jr.; and Orange Welborn for their years of service in the AMA Delegation. There being no objections, Doctor Long declared these Resolutions of Commendation adopted, and added that these physicians will be presented with their plaques at the closing session.

Doctor Long then announced a Candidates Forum will be held in Salon E at 3:00 PM and will be conducted by Doctor Robards, Vice-Speaker of the House.

## VII. President's Report

Dr. John R. Alexander presented his report as outgoing President of the OSMA, and noted that the past year was challenging, frustrating, even discouraging, but nonetheless gratifying overall. He discussed the various frustrations physicians are experiencing but noted that although there are problems, they are solvable.

Doctor Alexander discussed the State PPO and his involvement as a member of the legislative task force to study the dilemma, and announced



a new plan will be implemented in July that will be open to all physicians and hospitals with a fair reimbursement schedule for both.

He also discussed the potential impact of Medicare's "125% Rule," and noted that after much diligent work, the AMA and the American Academy of Family Practitioners presented testimony before Congress against the new law, and a coalition has been formed of ten states who have senators on the Senate Finance Committee to work together to delay implementation of the rule.

Doctor Alexander also talked about the initiation of the OSMA/OUHSC Liaison Committee, jointly chaired by Dr. Ed Brandt and himself.

In closing, Doctor Alexander urged physicians to "keep trying."

### VIII. Recess

Doctor Long declared a 10-minute recess for constituent society caucuses to prepare for nominations for the various association offices. The House reconvened at 10:30 AM.

Dr. Floyd F. Miller, Tulsa, announced he is not seeking re-election to the AMA House of Delegates and expressed his thanks to the House for allowing him to serve in this capacity.

### IX. Nominations

Doctor Long announced the floor was open for nominations for the following officer positions:

*President-Elect* (one year term of office)

Billy Dale Dotter, MD, Okeene

*Vice-President* (one year term of office)

Michael J. Haugh, MD, Tulsa

*Speaker, House of Delegates* (two-year term of office)

Larry L. Long, MD,

Oklahoma City

*Vice-Speaker, House of Delegates* (two-year term of office)

Victor L. Robards, Jr., MD, Tulsa  
*Delegate to the AMA (Positions I, II, IV)*

John R. Alexander, MD, Tulsa

\*M. Joe Crosthwait, MD,

Midwest City

\*Perry A. Lambird, MD,

Oklahoma City

Gary F. Strebel, MD,

Oklahoma City

*Alternate Delegate to the AMA (Positions I, II, IV)*

Robert T. Buchanan, MD,

Oklahoma City

Billy Dale Dotter, MD, Okeene

\*Burdge F. Green, MD, Stilwell

Charles K. Harmon, MD, Tulsa

Philip Mosca, MD,

Oklahoma City

Clarence Robison, Jr., MD,

Oklahoma City

M. Boyd Shook, MD,

Oklahoma City

*Trustee (District VI-Pos. III)*

\*Sara R. DePersio, MD,

Oklahoma City

*Alternate Trustee (District VI-Pos. I)*

\*Clarence Robison, Jr., MD,

Oklahoma City

*Alternate Trustee (District X)*

No nomination made

*Trustee (District XI)*

Robert E. Engles, MD, Durant

*Alternate Trustee (District XI)*

Preston A. Bagley, MD, Idabel

*Trustee (District XII)*

Gary L. Paddock, MD, Ada

*Alternate Trustee (District XII)*

James V. Miller, MD, Ardmore

*Trustee (District XIII)*

J. William McDoniel, MD,

Chickasha

Robert J. Weedn, MD, Duncan

*Alternate Trustee (District XIII)*

No nomination made

*Trustee (District XIV)*

Noble L. Ballard, MD, Altus

*Alternate Trustee (District XIV)*

Jeffry S. Lester, MD, Mangum

Doctor Long noted that since no nominations were made for the Alternate Trustee positions for District X and District XII, those vacancies would be addressed at the August Board of Trustees meeting.

Doctor Long asked for nominations for the PLICO Board of Directors (three-year terms). The following physicians were accepted by the House:

Elvin M. Amen, MD, Bartlesville

Nolen L. Armstrong, MD,

Oklahoma City

\*C. Alton Brown, MD, Oklahoma City

Melissa K. Clements, MD,

Oklahoma City

Norman A. Cotner, MD, Grove

E. Philip Couch, MD, Muskogee

\*Billy Dale Dotter, MD, Okeene

\*C. S. Lewis, Jr., MD, Tulsa

\*John A. McIntyre, MD, Enid

\*Tim K. Smalley, MD, Stillwater

\*Kenneth W. Whittington, MD,  
Bethany

(\*denotes incumbents)

There being no other nominations, the nominations were declared closed.

Discussion took place concerning the number of candidates running for AMA Delegate and Alternate Delegate positions. It was moved and seconded that nominations for these positions be reopened. It was then moved, seconded and carried that the above motion be amended to include time for a brief caucus. After further discussion, the question was called, a vote was taken, and the motion to reopen the nominations failed.

Doctor Long turned the floor over to Victor L. Robards, MD, Vice-Speaker of the House.

### X. Report of the Chairman of the Board

Doctor Robards announced that Dr. Sara R. DePersio, Oklahoma City, has been elected Chairman of the Board and Dr. Jay A. Gregory, Muskogee, Vice-Chairman. Dr. DePersio was recognized and briefly reviewed the Supplemental Report of the Board, copies of which were made available to the House.

### XI. Secretary-Treasurer's Report

Doctor Robards recognized Dr. James D. Funnell for his report, which is included in the House of Delegates material, including the Grant-Thornton Audit and the 1990 Proposed Budget.

Doctor Funnell noted this is the first year the OSMA and PLICO accounts are listed both jointly and separately. He stated that assets of OSMA/PLICO have increased from 1988, and that the OSMA/PLICO profit after taxes for 1989 was \$759,124. OSMA's profit was \$73,487, and PLICO's was \$685,637; OSMA's assets, excluding PLICO, is about \$2.2 million.

Doctor Funnell mentioned that Senate Bill 462, sponsored by OSMA, would exempt physicians' policy fee, which is contributed to reserves, from the Oklahoma Premium Tax. He also reported that the 14-year period of OSMA's negotiations with CIGNA over the OSMA/INA stabilization fund has led to a settlement, whereby CIGNA will receive 51% of the fund and OSMA will receive 49%, or \$340,000.



## **XII. Presentation of Business To Come Before the House**

Doctor Robards reminded the Delegates that only the information provided in the handbooks and the late business items will be considered at the reference committee meetings.

## **XIII. Other Business**

Doctor Robards announced that Dr. Robert W. Block and Dr. David J. Confer have agreed to present a special program on adolescent alcohol and drug abuse. Doctor Block encouraged the physicians and their spouses to attend and noted that more than 85% of our teenagers are regular drinkers.

Doctor Robards then announced the Closing Session will be held Saturday, May 5, at 9:00 AM in Ballroom Salon E.

## **XIV. Necrology Report**

Doctor Robards read the Necrology Report, after which a moment of silence was observed.

### **1989-90 Necrology Report**

John Justice Batchelor, MD  
Robert Sears Davis, Jr., MD  
Norman Eugene Dearnbarger, MD  
Nevin Wilson Dodd, MD  
Don Lee Dycus, MD  
Rheba L. Huff Edwards, MD  
Edmund Gordon Ferguson, MD  
Martin James Fitzpatrick, MD  
Hervey Adolph Foerster, MD  
Powell Everett Fry, MD  
George Harry Garrison, MD  
Monroe Ruework Jennings, MD  
Alpha Louis Johnson, MD  
Alwyn Travers Kornblee, MD  
Charles Edwards Leonard, MD  
David Charles Lowry, MD  
Howard Choice Martin, MD  
Dewey Lee Mathews, MD  
Ruben Hilton Mayberry, MD  
D. Evelyn Miller, MD  
Edward Keats Norfleet, MD  
Marshall W. Oppen, MD  
James Richard Riggall, MD  
Fred W. Sellers, MD  
Sylvester Robert Shaver, MD  
Vincel Sundgren, MD  
Wayman Jackson Thompson, MD  
Orville McClure Woodson, MD

## **XV. Recess**

It was moved, seconded and carried that the Opening Session of the House of Delegates recess at 11:25 AM.

Recorded by Toni Leverett and Bobbie Brown, Recording Secretaries



Chester L. Bynum, MD, Norman, and Ollie W. Dehart, MD, Vinita, distribute ballots in the House of Delegates.

# **Minutes OSMA House of Delegates CLOSING SESSION**

Saturday, May 5, 1990, 9:00 AM

## **I. Call to Order**

The Closing Session of the 84th Annual Meeting of the House of Delegates was called to order by Speaker Larry L. Long, MD, Oklahoma City, at 9:15 AM in Ballroom Salon E at the Oklahoma City Marriott Hotel.

## **II. Invocation**

Mrs. Maureen Bynum, outgoing Auxiliary President, led the invocation.

## **III. Report of the Credentials Committee**

Billy D. Dotter, MD, Okeene, Chairman, announced that a quorum was present.

Doctor Long introduced Mrs. Frances Waddle, Executive Director of the Oklahoma Nurses Association, and thanked those guests present who had also attended the Opening Session. The Chair also recognized additional OSMA Past Presidents in attendance: George H. Kamp, MD; Arnold G. Nelson, MD; and Orange M.

Welborn, MD. Doctor Long also noted that Dr. Joe L. Duer was present at the Past Presidents' breakfast but could not remain for the meeting.

## **IV. Remarks of the President-Elect**

Dr. Perry A. Lambird was recognized for his presentation which is included in Reference Committee II's report section. He expressed his thanks to Dr. John Alexander for a job well done and reviewed the various accomplishments and continuing problems from the past year. Doctor Lambird stressed the importance of unified strength in the OSMA/AMA.

Later in his comments, Doctor Lambird stated his plan to appoint a task force to initiate a coalition and an active public relations campaign concerning the Resource Based Relative Value Scale conversion, as well as an ad hoc committee to work with Aetna as the RBRVS conversion takes place.

## V. Presentations

Dr. M. Joe Crosthwait, AMA Delegation Chairman, was recognized to present special plaques to the following physicians for their years of service as members of the Oklahoma Delegation to the AMA: James B. Eskridge III, MD; Arnold G. Nelson, MD; James B. Pitts, Jr., MD; Victor L. Robards, Jr., MD; and Orange M. Welborn, MD. Each honoree accepted his plaque with appreciation and received a round of applause.

Doctor Crosthwait also noted that Floyd F. Miller, MD, Tulsa, has served for eight years on the Oklahoma Delegation, and John A. McIntyre, MD, Enid, for 10 years. Both will serve until their terms expire in December of this year. Doctor Crosthwait thanked them both for their dedication and service.

## VI. Guest Speakers

Doctor Long recognized Dr. William E. Jacott, member of the AMA Board of Trustees, a family practitioner from Minneapolis, Minnesota, for his remarks.

Doctor Jacott said he is honored to represent the AMA, and he and his wife, Judy, extend greetings. Doctor Jacott thanked Dr. J.B. Eskridge for his years of service on the AMA Constitution and Bylaws Reference Committee. He praised Dr. Ed Brandt, Executive Dean, and the OU College of Medicine.

Doctor Jacott has served on the AMA Board of Trustees for 11 months. Oklahoma's Delegation to the AMA has been outstanding over the years, he noted, and truly represents OSMA well. Doctor Jacott explained the Oklahoma Delegation has served Oklahoma and medicine in an exemplary fashion.

Doctor Jacott discussed the recent management changes occurring within the AMA, and noted the AMA Board of Trustees is immediately hiring an outside investigator to thoroughly review the management of the AMA. A new accounting firm, Deloitte & Touche, has also been hired, he noted. The AMA has also established two new internal committees, the Compensation Committee and the Audit Committee. The AMA's Finance Committee, he noted, continues to function, and its mission has been changed and enhanced.

Doctor Jacott announced that Dr.

James Sammons resigned as the AMA's Executive Vice President on Feb. 9 of this year, and Dr. Jim Todd is now serving as Acting EVP of the AMA. A Search Committee has been formed, he reported, composed of five members and chaired by Dr. John J. Ring, Chairman of the AMA Board. The committee, he noted, has been working hard to identify all eligible people; April 30 was the last day to accept applications. The committee is now making contacts to see if the nominees are interested. Doctor Jacott noted that Doctor Sammons made a profound contribution to the AMA through the years, and a reception in his honor will be held during the AMA House of Delegates.

Doctor Jacott stated that the OSMA, unified since its inception, has been so longer than any other state society in the nation. Oklahoma is one of ten unified states, and four others are now considering unifying. He expressed his strong belief in the AMA and in the necessity of physicians to maintain AMA membership now more than ever. Unity, Doctor Jacott stressed, is the key to our success. No one can effectively meet the challenges of the '90s individually, he stated. He mentioned several of the benefits of being unified: two additional delegates and alternate delegates to the AMA House of Delegates, a 10% reduction in AMA dues, and biweekly editions of the *AMA News* and *JAMA*. Every physician in this country benefits from the AMA, Doctor Jacott stated, and actively, we physicians can have an impact.

Doctor Jacott referred to OSMA's Resolution 14, which encourages and endorses Health Access America. The AMA, he noted, is trying to strengthen the US health care system. Doctor Jacott then highlighted the 16 points of Health Access America included with the resolution.

Doctor Jacott discussed the various ways in which physicians are being "hassled," and reviewed the AMA's five major legislative reform proposals which would (1) provide physicians with more complete information on Medicare utilization review policies; if physicians are subject to penalties, it is only fair that they be provided with advance knowledge of Medicare payment limits; (2) allow physicians to continue longstanding



AMA Trustee William A. Jacott, MD, Minneapolis, prepares to address the OSMA House of Delegates.

reciprocal agreements whereby a colleague cares for patients when the regular physician is not available; (3) amend Medicare reconsideration and appeal rules to allow state medical societies or other professional organizations to appeal payment denials on behalf of an entire class of physicians; (4) establish a physician advisory group to review Medicare Part B policy, requirements, and Medicare carrier implementation issues; and (5) prohibit Medicare carriers from charging physicians for information necessary for compliance with Medicare law and regulations.

In closing, Doctor Jacott expressed his thanks to OSMA.

Dr. John R. Alexander, outgoing OSMA President, explained that OSMA's support for the nursing profession has been demonstrated for many years, and he re-established the ONA/OSMA Liaison Committee this year. Doctor Alexander introduced the Oklahoma Nurses Association's First Vice President, Kathi Straw, RN.

Ms. Straw stated she was glad to speak to the OSMA on behalf of the Oklahoma Nurses Association. She touched on several issues, including the nursing shortage in Oklahoma, which she explained is a demand shortage rather than a supply short-



age. The ONA, she noted, appreciates OSMA's support for increasing the appropriations to the Oklahoma Nursing Student Assistance Program. Ms. Straw stated the need for funding for additional faculty and nursing education programs, which would help to increase enrollment. She also noted that the ONA/OSMA Liaison Committee is working on a nursing image career campaign, with the theme, "If caring were enough, anyone could be a nurse."

Ms. Straw announced that Monday, May 7, is National Nurses' Day. She expressed her appreciation for OSMA's efforts in the nursing profession and career potential and noted the likelihood of establishing communications between the district nurses' associations and the county medical society levels.

In summary, Ms. Straw pointed out that the nurse shortage brought ONA and OSMA together to address areas of concern; this is a good beginning, and they look forward to continuing efforts in promoting medical and nursing care to the people of Oklahoma.

## VII. Annual Plico Shareholders Meeting

Doctor Long declared the Annual Shareholders Meeting of PLICO was in session, and introduced C. Alton Brown, MD, President of PLICO, to present his report.

Doctor Brown reviewed the goals established in the OSMA Board of Trustees' meeting where the decision was made to create PLICO: (1) to guarantee a stable professional liability insurance market for Oklahoma physicians; (2) to write as broad a professional liability policy as was possible so physicians could practice medicine without fear; (3) to ensure that physicians never paid more for this insurance than the actual cost of claims and defense, plus the expense of running the company; and (4) to vow not to pay one penny for tribute. Doctor Brown elaborated on how each of these goals has been met through the years.

Doctor Brown then discussed the establishment of PLICO Health, which has re-established the basic principles of health insurance that had been lost sight of by the commercial marketplace. Doctor Brown stressed that just as PLICO has become unique because of its occurrence fea-

ture, PLICO Health has become unique because of its guaranteed insurability feature.

He noted that PLICO Health will most likely have to increase its premium next year, but not to the degree of other commercial insurers who have to serve third-party stockholders. Also, he mentioned PLICO Health pays no commission to agents, and these two items alone account for a 30% reduction in premium for the same benefit.

Doctor Brown announced that PLICO Health is in the process of developing one basis for payment of all physicians who provide services, rather than using zip code compensation.

Doctor Brown concluded by saying that PLICO ends the decade in its strongest financial position ever, but it is writing the two toughest lines of insurance, and physicians must all work together as a team and never lose sight of our original objectives in order to succeed in the decade to come.

There being no objections, Doctor Long declared the meeting of the PLICO Shareholders meeting concluded.

## VIII. Elections

Doctor Long reviewed the slate of nominees for uncontested positions which the House voted to approve, as listed below:

Billy D. Dotter, MD, Okeene,  
*President-Elect*

Michael J. Haugh, MD, Tulsa, *Vice-President*

Larry L. Long, MD, Oklahoma City,  
*Speaker, OSMA House of Delegates*

Victor L. Robards, Jr., MD, Tulsa, *Vice-Speaker, OSMA House of Delegates*

*Trustee District VI:* Oklahoma County  
Trustee (Pos. III): Sara R. DePersio,  
MD, Oklahoma City

Alternate (Pos. III): Clarence  
Robison, Jr., MD, Oklahoma  
City

*Trustee District XI:* Atoka, Bryan,  
Choctaw, Coal, McCurtain, and  
Pushmataha Counties

Trustee: Robert E. Engles, MD,  
Durant

Alternate: Preston A. Bagley, MD,  
Idabel

*Trustee District XII:* Carter, Garvin,  
Johnston, Love, Marshall, Murray

and Pontotoc County

Trustee: Gary L. Paddack, MD, Ada  
Alternate: James V. Miller, MD,  
Ardmore

*Trustee District XIV:* Greer, Harmon,  
Jackson, Kiowa and Washita  
Counties

Trustee: Noble L. Ballard, MD,  
Altus

Alternate: Jeffery S. Lester, MD,  
Mangum

There being no objection from the floor of the House, Doctor Long declared the above slate of nominees duly elected. He congratulated the new officers and trustees and asked that they please remain for photographs after the Closing Session.

Ballots were distributed and collected for the contested races. Doctor Long stated the election results would be announced during the course of the meeting, and introduced the tellers: Chester L. Bynum, MD; Ray L. Cornelison, Jr., MD; Ollie W. Dehart, MD; and Arthur E. Schmidt, MD. Election ballots were then distributed.

## IX. Reference Committee Reports

Doctor Long thanked the members of the House of Delegates who participated in the Reference Committee hearings.

He then stated the Reference Committee Reports would be governed by Roberts Rules of Order. Doctor Long added that a recommendation by a Reference Committee is automatically introduced as a motion and does not require a second.

The Reference Committee Reports considered by the House are attached and made a part of the official minutes included in the July, 1990 issue of the OSMA JOURNAL.

**Report of  
Reference Committee I:**  
Presented by Richard L. Hromas, MD,  
Enid, Chairman

Reference Committee I approved the following items without amendment:

Item 1. Report of the Board of Trustees — filed for information.

Items 4 and 5. Report of the Secretary-Treasurer and the Proposed OSMA 1990 Budget — adopted.

Item 8. Report of the Physicians



Liability Insurance Company — filed for information.

Item 9. Report of the Oklahoma State Medical Association Auxiliary — filed for information.

Item 10. Report of the Oklahomans Against Lawsuit Abuse Coalition — filed for information.

Item 12. Resolution 5 — Hold Harmless/Indemnification Clauses.

Item 15. Resolution 17 — Assistance for OSMA Members Involving Disputes.

Item 16. Late Resolution 31 — Medicare Fee Disclosure for Emergency Nonelective Procedures.

Reference Committee I approved the following items as amended:

Item 7. Report of the Constitution and Bylaws Committee — The Reference Committee recommended that the section of the report dealing with the election of AMA Delegates and Alternates be omitted, and the remainder of the report be adopted. Dr. J. B. Eskridge III, Chairman of the Constitution and Bylaws Committee, moved that the original report of the committee be approved as a whole, with no deletions.

Discussion took place. It was noted that this motion would go against the wishes of the House of Delegates and the Ad Hoc Committee on Office Tenure, both of which do not desire to have slotted positions. It was noted that the positions would not be slotted geographically, but rather the nominees would run against each other for each open position. The question was called, a vote was taken, and the motion failed. The House concurred with the recommendation of the Reference Committee, whereby the Report of the Constitution and Bylaws Committee be adopted with the exception of the section on election of AMA Delegates and Alternate Delegates.

Item 11. Resolution 3 — Referendum on Continued Mandatory AMA Membership — A "straw poll" was taken by Dr. Jay Gregory, Muskogee, to quickly determine the general opinion on continued unified membership. A vast majority of the House stood up, indicating agreement. It was then moved and seconded to reject the Reference Committee's recommendation that a referendum be conducted with education as to the pros and cons of federation unification. There was con-

siderable discussion. The question was called to terminate debate, which requires  $\frac{2}{3}$  vote to pass. The motion failed.

It was then moved and seconded to refer this item to the Board of Trustees. A vote was taken, and the motion failed.

The House then returned the original motion to reject the recommendation of the Reference Committee. The question was called. A voice vote was taken, and Doctor Long declared a division of the House. A vote was then taken by show of hands, with the ayes 43 and nos 58. The motion failed.

There was discussion in support of the Reference Committee's recommendation that a referendum be conducted. The question was called to terminate debate and was seconded and carried. It was then moved to vote on the recommendation of the Reference Committee to approve Resolution 3, requiring a  $\frac{2}{3}$  vote. The vote by show of hands indicated 45 ayes and 64 nos. The recommendation failed.

Item 14. Resolution 12 — Single-Zone Reimbursement for PLICO Health Insurance — The word "immediate" on line 12 was deleted, to read as follows: "Resolved, That the Oklahoma State Medical Association support the creation of a single reimbursement zone for the State of Oklahoma for PLICO Health."

Reference Committee I rejected the following items:

Item 3. Report A to the Board of Trustees — The Reference Committee supported the decision of the Board of Trustees in not accepting the recommendation of the OSMA Hospital Medical Staff Section.

Item 13. Resolution 11 — Creation of an Appeal Process.

Item 17. Late Resolution 32 — Disclosure of Those Who Perform Peer Review.

Reference Committee I referred the following items:

Item 2. Supplemental Report of the Board of Trustees — It was moved, seconded, and carried that the two recommendations of the Reference Committee be divided for consideration by the House.

After some discussion concerning

the concept of an OSMA branch office, it was moved and seconded that the original recommendation of both the Executive Committee and Board of Trustees to implement a branch office be approved, rather than being referred back to the Board of Trustees. After further discussion, the motion failed. It was noted that during the Board of Trustees meeting many concerns were voiced, and the financial figures for such an endeavor were unavailable. Mr. David Bickham, OSMA Executive Director, explained this would be considered an OSMA field office with a yearly cost approximating \$50-60,000.

It was then moved, seconded, and carried that this item be referred to the Board of Trustees for further study and action.

Discussion then took place concerning the extension of the annual meeting from a two-day meeting to a three-day meeting. It was moved, seconded, and carried that this report be referred to the Board of Trustees as recommended in the Reference Committee report.

Item 6. Report of the Council on Planning and Development — The Reference Committee recommended that this report be filed for information. However, since the report reflects a number of recommendations for consideration, the House opted to refer this item to the Board of Trustees.

The Report of Reference Committee I was then approved by the House as a whole, as amended.

Doctor Long then announced the election results of the contested races: The three winners for positions as Delegates to the AMA are John R. Alexander, MD, Tulsa; M. Joe Crosthwait, MD, Midwest City; and Perry A. Lambird, MD, Oklahoma City.

Two winners for positions as Alternate Delegates to the AMA are Billy Dale Dotter, MD, Okeene; and Burdge F. Green, MD, Stilwell. Doctor Long noted there is a tie for the third position, and asked the members of the House to vote for either Dr. Philip Mosca or for Dr. Clarence Robison, Jr., both of Oklahoma City.

The winner of the race for Trustee for District XIII, Doctor Long announced, is Robert J. Weedn, MD, Duncan.

Doctor Long announced the elec-

tion results for the PLICO Board of Directors: C. Alton Brown, MD, Oklahoma City; Billy Dale Dotter, MD, Okeene; C. S. Lewis, Jr., MD, Tulsa; John A. McIntyre, MD, Enid; Tim K. Smalley, MD, Stillwater; and Kenneth W. Whittington, MD, Bethany.

### Report of

#### Reference Committee II:

Presented by William O. Coleman, MD, Oklahoma City, Chairman

Reference Committee II approved the following items without amendment:

Item 1. Report of the President — filed for information.

Item 2. Report of the President-Elect — filed for information.

Item 3. Report of the Council on Professional and Public Relations — filed for information.

Item 4. Report of the Council on Public and Mental Health — filed for information.

Item 5. Report of the Ad Hoc Committee on AIDS — filed for information.

Item 6. Report of the Council on Medical Education — filed for information.

Item 7. Report of the Council on Medical Services — filed for information.

Item 8. Report of the Young Physicians Section — filed for information.

Item 9. Report of the Medical Students Section — filed for information.

Item 10. Report of the Hospital Medical Staff Section — filed for information.

Item 12. Report of the OSMA Child Abuse Task Force — filed for information.

Item 13. Report of the JOURNAL of the Oklahoma State Medical Association — filed for information.

Item 20. Resolution 16 — Community Pharmacist — adopted.

Item 21. Late Resolution 19 — Immunizations and Vaccinations — adopted.

Item 24. Late Resolution 24 — National Nurses' Day — adopted.

Item 25. Late Resolution 25 — Maternal Substance Abuse During Pregnancy — adopted.

Item 26. Late Resolution 27 — CME Courses — adopted.

Item 28. Late Resolution 30 —

Funding for OUHSC Library Endowment — adopted.

Reference Committee II approved the following item as amended:

Item 14. Resolution 1 — Perinatal Care — the Reference Committee recommended amendments so as to read:

*"Resolved, That the Oklahoma*



Gary F. Strelbel, MD, and OSMA Secretary-Treasurer James D. Funnell, MD, Oklahoma City, chat with colleagues during a break in the House.

State Medical Association investigate proposals which address the issue of more effective access to perinatal services for pregnant women in Oklahoma; and be it further

*"Resolved, That the OSMA participate as appropriate in the development of strategies along with existing state and local services designed to provide perinatal care for all pregnant women in our state."*

Item 16. Resolution 4 — OSMA Drug Prevention and Adolescent Health Task Force — the Reference Committee recommended amendments on Line 29 after the word "services"; so as to read:

*"and the OSMA will provide materials that can be loaned to county medical societies to prepare programs in their local communities."*

Item 17. Resolution 9 — Adequate Medical Care — the Reference Committee recommended that the final *Resolve* be deleted and the remainder of the resolution be adopted.

Item 18. Resolution 10 — Licensing of HMOs, PPO, Etc. — the Reference Committee recommended amendments so as to read:

*"Resolved, That the OSMA House of Delegates support the concept that all HMOs, PPOs and similar health care delivery systems be responsible..."*

Item 19. Resolution 14 — Health Access America — the Reference Committee recommended amendments so as to read:

*"Resolved, That the individual components of the AMA's Health Access America Plan be assigned to appropriate OSMA councils and committees for assessment and possible implementation."*

Item 22. Late Resolution 20 — Medical Careers — the Reference Committee recommended amendments whereby the second *Resolve* is deleted and the remainder of the resolution is adopted.

Item 27. Late Resolution 29 — Environmental Health Programs — the Reference Committee recommended that the last *Resolve* be stricken and the remainder of the resolution be adopted.

Reference Committee II rejected the following items:

Item 15. Resolution 2 — Early Medical School Training — the following Substitute Resolution was recommended in lieu of Resolution 2:

*"Resolved, That the OSMA/OUHSC Liaison Committee continue to address the problem of encouraging physicians to enter primary care practices in rural areas."*

Item 23. Late Resolution 22 — "Growing Healthy" Curriculum — the following Substitute Resolution was recommended in lieu of Late Resolution 22:

*"Resolved, That the OSMA endorse programs of curricula aimed at the prevention of health care problems through education."*

Reference Committee II made the following recommendation:

Item 11. Report of the Oklahoma Foundation for Peer Review — since



there was no written report to consider, the Reference Committee recommended that the OSMA ask the OFPR to provide a report on its activities for 1989, and that annual reports be filed with the House of Delegates. It was further suggested that two reports be produced, one from the OFPR's Executive Director and one from their Medical Director.

The Report of Reference Committee II was then approved by the House as a whole, as amended.

Doctor Long turned the meeting over to Victor L. Robards, Jr., MD, Vice-Speaker of the House.

### Report of

#### Reference Committee III:

Presented by J. D. Lackey, MD, Tulsa, for Charles K. Harmon, MD, Tulsa, Chairman

Reference Committee III approved the following items without amendment:

Item 1. Report of the Council on Governmental Activities — adopted.

Item 2. Report of the Council on State Legislation — adopted.

Item 3. Report of the Council on Member Services — filed for information.

Item 4. Report of the Oklahoma Medical Political Action Committee — filed for information.

Item 5. Report of the Physician Recovery Committee — filed for information.

Item 6. Resolution 6 — IRS Proposed Regulations — adopted.

Item 9. Resolution 13 — Medicare Single-Zone Reimbursement — the Reference Committee recommended that this resolution be adopted, and that Stephens County Medical Society be added as a co-author.

Item 10. Late Resolution 18 — Medicare Reimbursement Campaign — adopted with the specification that an assessment be levied at the discretion of the Board of Trustees not to exceed the limits specified in the resolution.

Item 12. Late Resolution 23 — Rural Medical Care — adopted.

Item 13. Late Resolution 26 — Legislative Intervention in Implementing the "125% Rule" — adopted.

Item 14. Late Resolution 28 — PRO Program Study — adopted.

Reference Committee III amended the following items:

Item 8. Resolution 8 — Medicare Regulations — the Reference Committee



Billy D. Dotter, MD, Okeene, new OSMA president-elect, pauses on his way to the House of Delegates.

tee recommended amendments so as to read:

*"Resolved, That the Oklahoma State Medical Association and the American Medical Association be encouraged to increase efforts to require that all Medicare regulations be reviewed by judicial authorities prior to their implementation . . ."*

Item 11. Late Resolution 21 — University of Oklahoma College of Medicine Funding — the Reference Committee recommended amendments so as to read:

*"Resolved, That the Oklahoma State Medical Association continue to support and pursue additional funding at the State Legislature through the OSMA's Council on State Legislation and Regulation for both campuses of the University of Oklahoma College of Medicine."*

Reference Committee III referred the following item:

Item 7. Resolution 7 — Feasibility Study — State Insurance Pool — the Reference Committee recommended, and the House concurred, that Resolution 7 be referred to the OSMA Board of Trustees for further consideration.

Reference Committee III rejected the following items:

Item 9. Resolution 15 — Budget Neutral Medicare Single-Zone Reimbursement — the Reference Committee recommended, and the House concurred, that Resolution 13, "Medicare Single-Zone Reimbursement," be adopted in lieu of Resolution 15.

The Report of the Reference Committee III was then approved by the House as a whole, as amended.

### IX. Other Business

Doctor Robards announced the election results for the remaining AMA Alternate Delegate position and noted the winner is Clarence Robison, Jr., MD, Oklahoma City. Doctor Robison thanked the members of the House for their votes and also stressed that Dr. Philip Mosca would be a valuable asset in any capacity to the Association.

Doctor Robards announced the PLICO Forum will meet in Salon A room directly after this meeting; the PLICO Loss Prevention Seminar will take place in this room upon adjournment of this meeting.

### X. Adjournment

There being no further business, the Closing Session of the 84th meeting of the OSMA House of Delegates adjourned at 12:55 AM.

Recorded by Toni Leverett and Susan Tindall, Recording Secretaries.



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## OSMA House of Delegates RESOLUTIONS

### RESOLUTION 1

(Adopted as Amended)

Introduced by: Council on Public  
and Mental Health  
Robert M. Mahaffey, MD,  
Chairman  
Subject: **Perinatal Care**  
Referred to: Reference Committee II

WHEREAS, The Oklahoma State Medical Association is aware of the fact that nearly half of all expectant mothers in our state do not receive early and adequate prenatal care; and

WHEREAS, The Oklahoma State Medical Association believes that existing funds could be better utilized to provide access to perinatal care to all pregnant women in the State of Oklahoma; now therefore be it

*Resolved*, That the Oklahoma State Medical Association investigate proposals which address the issue of more effective provision of access to perinatal services for pregnant women in Oklahoma; and be it further

*Resolved*, That the OSMA participate as appropriate in the development of strategies along with existing state and local services designed to provide perinatal care for all pregnant women in our state.

### RESOLUTION 2

(Not Adopted)

Introduced by: Oklahoma Delegation  
to the AMA  
Subject: **Early Medical School  
Training**  
Referred to: Reference Committee II

WHEREAS, Nationwide there is a pronounced shortage of primary care physicians serving rural (non-urban) areas; and

WHEREAS, This impacts adversely on access and delivery of health care to the poor and underinsured population; and

WHEREAS, Medical schools have for many years neglected an emphasis on "hands-on training" during the early years of medical school; and

WHEREAS, There seems to be a tendency to wait until residency years to teach and allow attention to needed clinical techniques; and

WHEREAS, Many full-time instructors of medical training unduly stress the dangers and pitfalls of hands-on care for the students and interns; and

WHEREAS, Lack of physicians in primary and rural practices gives some politicians and business leaders

valid excuses to push for nationalized health care; and

WHEREAS, In some innovative programs, medical training is moving away from hospital-based teaching into office and medical surgi-centers for early hands-on instruction; now therefore be it

*Resolved*, That the OSMA/OUHSC Liaison Committee continue to address the problem of encouraging physicians to enter primary care practices in rural areas. American Medical Association study the problem of the lack of early exposure of medical students to clinical practice and its relationship to the shortage of primary care and rural practitioners, and advise the nation's medical school deans that students are not best served by teachings from only full-time teaching staff, and encourage that a student's early years include office-based training in many physicians' offices.

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### SUBSTITUTE RESOLUTION 2

(Not Adopted)

*Resolved*, That the OSMA/OUHSC Liaison Committee continue to address the problem of encouraging physicians to enter primary care practices in rural areas.

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### RESOLUTION 3

(Not Adopted)

Introduced by: Tulsa County Medical  
Society  
Mayes County Medical Society  
Craig-Ottawa-Delaware County  
Medical Society  
Subject: **Referendum on  
Continued Mandatory AMA  
Membership**  
Referred to: Reference Committee I

WHEREAS, In 1950, Oklahoma became the first state to require all physician members of the Oklahoma State Medical Association to maintain membership in the American Medical Association; and

WHEREAS, After forty years, it would be appropriate to determine the attitude of the general membership toward this policy; and

WHEREAS, While over the years several states have considered man-

datory membership in the AMA, only six states currently have such a requirement; and

WHEREAS, Article X of the Constitution and Bylaws of the Oklahoma State Medical Association provides for submitting questions to a vote of the members of the association; now therefore be it

*Resolved*, That a referendum be conducted of the general membership of the Oklahoma State Medical Association to determine if the membership approves of continued mandatory membership in the American Medical Association

## RESOLUTION 4

(Adopted as Amended)

Introduced by: Tulsa County Medical Society

Subject: **OSMA Drug Prevention and Adolescent Health Task Force**

Referred to: Reference Committee II

WHEREAS, Oklahoma State Medical Association recognizes the current crisis concerning adolescent alcoholism and drug abuse to be a community-wide problem; and

WHEREAS, Individual physician involvement with education as to the nature and approaches to the solution of these problems will be an important factor in overcoming them; and

WHEREAS, With local physicians providing some leadership and education, parents can join together with the schools, community leaders, and local law enforcement to establish their prevention program; and

WHEREAS, To this end, the Oklahoma State Medical Association is establishing a drug prevention task force of state physicians (and/or their spouses) to get involved locally across the entire state in an effort to resolve this crisis; now therefore be it

*Resolved*, That the OSMA Drug Prevention and Adolescent Health Task Force (or council of the same name) be an ongoing entity of the OSMA with membership to include physician and spouse volunteers; this group shall meet annually in concert with the OSMA annual meeting to educate new volunteers and provide continuing education and information for its membership; this group shall

avail itself of available resources and work with existing agencies to avoid duplication of services; ~~and funding shall be established for this group by the Oklahoma State Medical Association for educational materials for a lending library distribution network and to assist poorly funded school districts with additional education programs~~, and the OSMA will provide materials that can be loaned to county medical societies to prepare programs in their local communities.

## RESOLUTION 5

(Adopted)

Introduced by: Tulsa County Medical Society

Subject: **Hold Harmless/Indemnification Clauses**

Referred to: Reference Committee I

WHEREAS, Hold harmless or indemnification clauses appear in contracts between physicians and health provider organizations such as PPOs and HMOs; and

WHEREAS, Such clauses increase the physician's professional liability; and

WHEREAS, Physicians Liability Insurance Company (PLICO) and the Oklahoma State Medical Association (OSMA) have consistently taken positions opposing such clauses; now therefore be it

*Resolved*, That the Oklahoma State Medical Association and Physicians Liability Insurance Company shall, in the future, continue as a matter of policy to oppose all hold harmless and indemnification clauses proposed by any health provider organization or insurance company; and be it further

*Resolved*, That should OSMA or PLICO become aware of provider agreements with hold harmless or indemnification clauses, it will timely notify all of its physician members to such agreements and the risk implications to physicians, including that professional liability insurance coverage provided by PLICO does not extend to cover hold harmless or indemnification contractual liability.

## RESOLUTION 6

(Adopted)

Introduced by: Tulsa County Medical Society

Subject: **IRS Proposed Regulations**

Referred to: Reference Committee III

WHEREAS, The Internal Revenue Service's proposed regulations concerning Code 414(m)(5) clearly discriminate against physicians and have resulted in the untimely termination of many physicians' pension plans and profit sharing plans; and

WHEREAS, These proposed regulations have also resulted in the loss of pension plan benefits for many non-physician employees who have faithfully served groups of physicians for many years; and

WHEREAS, These proposed regulations clearly exceed the provisions of the law and run counter to the legislative history of the existing regulations; now therefore be it

*Resolved*, That the Oklahoma State Medical Association and the American Medical Association use all appropriate means to influence the Internal Revenue Service to withdraw these proposed regulations and permit professional corporations, who have terminated their plans because of these proposed regulations, to return to their previous position.

## RESOLUTION 7

(Referred to Board of Trustees)

Introduced by: J. C. Kramer, MD, Tulsa

Subject: **Feasibility Study — State Insurance Pool**

Referred to: Reference Committee III

WHEREAS, The members of Tulsa County Medical Society recognize the importance of access to good health care for the citizens of this state; and

WHEREAS, Also recognizing the increasing tax burden both direct and indirect that individuals without health insurance cause for the taxpayers of the state; and

WHEREAS, Also recognizing the increasing burden upon the hospitals of these same individuals and the in-



crease in costs for those who can and do pay; and

WHEREAS, Recognizing that prior disease exclusion often forces individuals with chronic disease onto the public sector when they mature, when changes in jobs occur, or when company insurance offerings change; now therefore be it

*Resolved*, That the Oklahoma State Medical Association work with the Governor, the Legislature, and the Department of Human Services to reduce the shifting of the chronically ill to the public sector expense by requiring the insurance industry in the state to only offer policies without certain exclusions, i.e., prior disease, and reward companies with tax reductions who offer policies that do not result in an increase of public expense by cancelling policies when children mature into adults, when fathers or mothers change jobs, when employers change insurance companies, or when the insured parent or guardian is unemployed, and be it further

*Resolved*, That the Oklahoma State Medical Association, with the insurance industry, the Governor, the State Insurance Commissioner, and the Department of Human Services investigate the feasibility of a state insurance pool for the otherwise uninsurable with chronic illness such as cystic fibrosis, diabetes, cancer, mental and emotional disorders, and others.

## RESOLUTION 8

(Adopted as Amended)

Introduced by: R. Wayne Neal, MD,  
Tulsa  
Richard D. Raines, MD, Tulsa  
Robert P. Zoller, MD, Tulsa  
Subject: **Medicare Regulations**  
Referred to: Reference Committee III

WHEREAS, It is the feeling of most Oklahoma physicians that many of the regulations of Medicare are blatantly unconstitutional; and;

WHEREAS, If enacted by private parties, these regulations would constitute a violation of the Sherman Anti-trust Act; now therefore be it

*Resolved*, That the Oklahoma State Medical Association and the American Medical Association be encouraged to increase efforts to require

that all Medicare regulations be reviewed by judicial authorities prior to their implementation as they are released; and that the judicial system be utilized to the fullest in contesting the constitutionality of these regulations in the courts; for example, Medicare's right to enforce regulations dictating allowable fees to be charged by physicians and determining, based on non-medical criteria, the medical necessity of length or frequency of a physician's evaluation of a patient.

## RESOLUTION 9

(Adopted as Amended)

Introduced by: M. Joe Crosthwait,  
MD, Midwest City  
Subject: **Adequate Medical Care**  
Referred to: Reference Committee II

WHEREAS, The Oklahoma State Medical Association is aware that there are many Americans without adequate medical care, nutritional care and perinatal care; and

WHEREAS, The Oklahoma State Medical Association recognizes that the lack of health education in the early years, as well as funding economics, are major factor in the evolution of this problem; and

WHEREAS, Socialization experiments designed to solve these problems are failing around the world; now therefore be it

*Resolved*, That any experimentation designed to deal with the lack of adequate medical care, nutritional care and perinatal care, and endorsed by the Oklahoma State Medical Association, be developed through the private enterprise, free market system; and be it further

~~*Resolved*, That the VIP Program, developed by the Oklahoma State Medical Association and its component societies, be given "favored nation status" as one important method in meeting many of the medical needs of the citizens of Oklahoma.~~

## RESOLUTION 10

(Adopted as Amended)

Introduced by: A. Standley Porter,  
MD, Oklahoma City

Subject: **Licensing of HMOs, PPOs, Etc.**

Referred to: Reference Committee II

WHEREAS, Prior to the event of HMOs, PPOs and other similar organizations, the private physicians and hospitals assumed the medical care of indigent patients; and

WHEREAS, The HMOs, PPOs and other similar organizations assume no care of indigent patients, thus taking away the payment of the paying patients to the private physician and hospitals and leaving them with an increasing percentage of non-paying patients; now therefore be it

*Resolved*, That the OSMA House of Delegates support the concept that all HMOs, PPOs and other similar organizations ~~be licensed within the State of Oklahoma~~ and health care delivery systems be responsible in assuming a percentage of indigent patients in their organizations and contracting hospitals equivalent to the indigent percentage of the State of Oklahoma population in the previous year as determined by the Oklahoma State Department of Human Resources.

## RESOLUTION 11

(Not Adopted)

Introduced by: A. Standley Porter,  
MD, Oklahoma City  
Subject: **Creation of Appeal Process**

Referred to: Reference Committee I

WHEREAS, The Oklahoma State Medical Association is concerned with quality care to the individual patient; and

WHEREAS, Commercial and government mandated peer review processes are primarily concerned with the utilization and cost of medical care, not quality; and

WHEREAS, The treating physician is sometimes compromised and questioned unnecessarily about medical decisions made while treating the patient; now therefore be it

*Resolved*, That the OSMA create an appeal process wherein an outside Review Board consisting of a member of OSMA and two physicians from the area in which the appealed claim originates (and being of the same specialty

of practice) be established to review the denied or challenged claims, that the decisions, while not binding, be made available to the treating physician.

## RESOLUTION 12

(Adopted as Amended)

Introduced by: Pontotoc-Johnston-Murray County Medical Society

Subject: **Single-Zone Reimbursement for PLICO Health Insurance**

Referred to: Reference Committee I

WHEREAS, Nonurban physicians practice quality medicine; and

WHEREAS, PLICO Health Insurance is supported by all physicians in the State of Oklahoma; and

WHEREAS, PLICO Health Insurance currently reimburses different areas of the state at different rates; now therefore be it

*Resolved*, That the Oklahoma State Medical Association support the immediate creation of a single reimbursement zone for the State of Oklahoma for PLICO Health.

## RESOLUTION 13

(Adopted)

Introduced by: Pontotoc-Johnston-Murray County Medical Society

Subject: **Medicare Single-Zone Reimbursement**

Referred to: Reference Committee III

WHEREAS, Nonurban physicians practice quality medicine; and

WHEREAS, Oklahoma is divided into five (5) Medicare reimbursement areas which frequently reimburse unequally for identical services; and

WHEREAS, Nonurban physicians see a higher percentage of Medicare patients and are reimbursed less than their urban colleagues; and

WHEREAS, In 1991, nonurban physicians will be penalized even more when charges are limited to 125% of Medicare allowable; and

WHEREAS, The recruitment and retention of nonurban physicians is becoming a significant problem; now therefore be it

*Resolved*, That the Oklahoma



Jay A. Gregory, MD, Muskogee; Billy D. Dotter, MD, Okeene; and House Speaker Larry L. Long, MD, Oklahoma City, get ready for the Board of Trustees meeting. Dr Gregory is the board's new vice-chair.

State Medical Association support the immediate creation of a single Medicare reimbursement zone for the State of Oklahoma with equal reimbursement for identical services to all physicians within the state; and be it further

*Resolved*, That the Oklahoma State Medical Association will support this even if it is required to be budget neutral.

## RESOLUTION 14

(Adopted as Amended)

Introduced by: Council on Public and Mental Health

Robert M. Mahaffey, MD

Subject: **Health Access America**

Referred to: Reference Committee II

WHEREAS, Some 40 million Americans do not have health insurance, even though many are employed; and

WHEREAS, Many of our nation's poorest citizens have very little or no access to health care; and

WHEREAS, Many of our nation's major industries site cite employee

health care costs as a reason for the failure of American products to compete with world markets; and

WHEREAS, Physicians must be proactive in developing new methods to fund and insure the future of the American Health Care Delivery System; now therefore be it

*Resolved*, That the Oklahoma State Medical Association endorse and adopt the American Medical Association's Health Access American Plan; and be it further

*Resolved*, That the individual components of the AMA's Health Access America Plan be assigned to appropriate OSMA councils and committees for assessment and possible implementation.

### Summary of AMA Proposal

The elements of the AMA proposed plan may be summarized in the following 16 points:

1. Increase access by enacting major *Medicaid Reform*.
2. Increase access by requiring employer provision of health insurance.
3. Increase access by creating state-level risk pools in all states.
4. Maintain quality and reduce costs for the elderly by enacting *Medicare Reform*.
5. Increase access and reduce costs for the elderly by enacting necessary legislation to finance expanded long-term care coverage.
6. Reduce health care costs through professional liability reform.
7. Maintain quality and reduce costs through development of professional practice parameters.
8. Reduce health care costs through altering the tax treatment of employee health care benefits.
9. Reduce costs by encouraging cost-conscious decisions by patients.
10. Reduce costs by seeking innovation in insurance underwriting.
11. Maintain quality through expanded federal support for medical education, research and the National Institutes of Health (NIH).
12. Maintain quality and reduce costs through increased health promotion and disease prevention.
13. Reduce costs and increase access by amending ERISA or the federal tax code to equalize treatment of self-insured and insurance plans.
14. Reduce costs and increase access by repealing or overriding state-mandated benefit laws.
15. Reduce costs by reducing administrative costs and paperwork.
16. Maintain quality and access through encouraging physicians to practice in accordance with the highest ethical standards and to provide voluntary care.

## RESOLUTION 15

(Not Adopted)

Introduced by: Stephens County Medical Society

Subject: **Budget Neutral Medicare Single-Zone Reimbursement**

Referred to: Reference Committee III

WHEREAS, There are now five Medicare reimbursement zones for physician payment in Oklahoma; and



WHEREAS, Reduced payment to physicians in zones outside the metropolitan areas adversely affects doctors in many parts of our state; now therefore be it

*Resolved*, That the Oklahoma State Medical Association support a uniform, budget neutral, single zone fee schedule for Medicare physician reimbursement in the State of Oklahoma.

*Resolved*, That the Oklahoma State Medical Association will support this even if it is required to be budget neutral.

## RESOLUTION 16

(Adopted)

Introduced by: Irwin H. Brown, MD,  
Oklahoma City

Subject: **Community Pharmacist**  
Referred to: Reference Committee II

WHEREAS, The community pharmacist is licensed by the State of Oklahoma, and his practice is carefully controlled by the Oklahoma Board of Pharmacy; and

WHEREAS, The community pharmacist is the best qualified professional to interpret a prescription, fill it accurately, clarify the drugs and counsel the patient to assure compliance; and

WHEREAS, The community pharmacist provides a good check and balance on the veracity, quantity, and strength set out in the prescription; and

WHEREAS, The community pharmacist works with the physician to make certain that patients receive high quality and effective drugs; and

WHEREAS, Some health plans and insurers require patients, in order to receive discounts, to buy drugs from mail-order houses; and

WHEREAS, The protection created by the long-standing physician-patient-pharmacist relationship is abrogated by requirements that emphasize the use of mail-order drug houses; now therefore be it

*Resolved*, By the Oklahoma State Medical Association House of Delegates, that Oklahoma physicians are encouraged to counsel their patients about the importance of utilizing the community pharmacist.

## RESOLUTION 17

(Adopted)

Introduced by: Oklahoma County  
Medical Society

Subject: **Assistance for OSMA  
Members Involving Disputes**  
Referred to: Reference Committee I

WHEREAS, The Oklahoma State Medical Association's Council on Medical Services has a mechanism in place to review members' disputes concerning hospital staff privileges and credentialing; and

WHEREAS, The OSMA Physicians Rights Committee is charged with assisting OSMA members in disputes over rights and privileges against third parties; and

WHEREAS, The demand for dispute settlements in all these areas is increasing, and there is a general lack of awareness of these programs by the OSMA membership; now therefore be it

*Resolved*, That all peer review and third party dispute activities of the OSMA be enhanced, and that the OSMA membership be made aware of these member service programs by appropriate methods; and be it further

*Resolved*, That these OSMA ombudsman programs be continued on a permanent basis, and that consideration be given toward the establishment of regional subcommittees or task forces.

(Late Resolution)

## RESOLUTION 18

(Adopted)

Introduced by: Pontotoc-Johnston-  
Murray County Medical Society

Subject: **Medicare Reimbursement  
Campaign**

Referred to: Reference Committee III

WHEREAS, All Medicare patients pay the same premium; and

WHEREAS, Oklahoma Medicare beneficiaries receive less of a return on their premiums because there is unequal Medicare reimbursement; and

WHEREAS, The OSMA is concerned about unequal Medicare reimbursement and geographical differentials will adversely affect access to

health care; now therefore be it

*Resolved*, That the OSMA begin as soon as possible an organized statewide effort to educate physicians and Medicare beneficiaries regarding the problems of unequal Medicare reimbursement; and be it further

*Resolved*, That this educational effort include the use of pamphlets and brochures to be distributed by local physicians, meetings with Medicare beneficiaries and senior advocate groups, and paid advertising; and be it further

*Resolved*, That if deemed necessary by the OSMA Board of Trustees, a special assessment of up to \$200 per OSMA member is hereby authorized by the House of Delegates to finance this campaign to obtain equal and fair reimbursement under Medicare for all Oklahoma physicians and equitable benefits for their Medicare patients.

(Late Resolution)

## RESOLUTION 19

(Adopted)

Introduced by: Oklahoma Society of  
Internal Medicine

Subject: **Immunizations and  
Vaccinations**

Referred to: Reference Committee II

WHEREAS, The State of Oklahoma through the Oklahoma State Department of Health is the only state in the nation to participate in a Medicare flu vaccine demonstration project; and

WHEREAS, Many adults are unaware of the importance of receiving vaccinations and booster shots; and

WHEREAS, Many physicians and their staffs who are most at risk for flu, hepatitis and other diseases are not vaccinated; now therefore be it

*Resolved*, That the OSMA commend the Oklahoma State Department of Health for its efforts in the Medicare flu demonstration project, and encourage Oklahoma physicians to participate in this project; and be it further

*Resolved*, That the OSMA through its member physicians educate adults as to the importance of immunizations; and be it further

*Resolved*, That OSMA undertake a plan to educate physicians to routinely provide vaccinations as needed for themselves and their employees.

(Late Resolution)

**RESOLUTION 20**

(Adopted as Amended)

Introduced by: Council on Medical Education  
 Lofty L. Basta, MD, Chairman  
 Subject: **Medical Careers**  
 Referred to: Reference Committee II

WHEREAS, The number of qualified students applying to medical school continues to diminish; and

WHEREAS, Fewer medical students are choosing careers in primary care areas of family practice and internal medicine; and

WHEREAS, It remains difficult to recruit physicians to practice in non-metropolitan areas; now therefore be it

*Resolved*, That the Oklahoma State Medical Association work with county medical societies to develop programs for local physicians to interact with local high schools and colleges to encourage them to enter careers in medicine; and be it further

~~*Resolved*, That the OSMA work with county medical societies and the University of Oklahoma College of Medicine to develop programs to allow medical students prior to their fourth year partnerships to visit and observe primary care physicians in non-metropolitan areas, to learn early on in their medical education the realities and rewards of practicing medicine in these areas of our state.~~

(Late Resolution)

**RESOLUTION 21**

(Adopted as Amended)

Introduced by: Council on Medical Education  
 Lofty L. Basta, MD, Chairman  
 Subject: **Health Sciences Center Funding**  
 Referred to: Reference Committee III

WHEREAS, The University of Oklahoma Health Sciences Center College of Medicine receives only 18% of their funding from the state, a reduction from \$65 million to \$35 million in four years; now therefore be it

*Resolved*, That the Oklahoma State Medical Association continue to

support and pursue additional funding at the State Legislature through the OSMA's Council on State Legislation and Regulation for both campuses of the University of Oklahoma College of Medicine.

(Late Resolution)

**RESOLUTION 22**

(Not Adopted)

Introduced by: Council on Medical Education  
 Lofty L. Basta, MD, Chairman  
 Subject: **"Growing Healthy" Curriculum**  
 Referred to: Reference Committee II

WHEREAS, Efforts for the prevention of health problems through education are less expensive than intervention with problems which have already occurred; and

WHEREAS, Exercise and healthy nutrition behaviors reduce the risk of chronic diseases; and

WHEREAS, Sixty-four percent of American young people have tried an illegal drug before finishing high school; and

WHEREAS, The curriculum "Growing Healthy" addresses the psychological, social and physical components of education for our children grades K-12; and

WHEREAS, The Department of Education and the Oklahoma State Health Department have placed "Growing Healthy" on the approved resource list complying with 1476, the AIDS Education Mandate; and

WHEREAS, Numerous public and private schools in Oklahoma are currently benefiting from the curriculum "Growing Healthy"; now therefore be it

*Resolved*, That the OSMA endorse the comprehensive curriculum "Growing Healthy."

(Late Resolution)

**SUBSTITUTE  
RESOLUTION 22**

(Not Adopted)

*Resolved*, That the OSMA endorse programs of curricula aimed at the prevention of health care problems through education.

(Late Resolution)

**RESOLUTION 23**

(Adopted)

Introduced by: East Central County Medical Society  
 Subject: **Rural Medical Care**  
 Referred to: Reference Committee III

WHEREAS, The development and enhancement of medical and hospital services in rural America have been impeded by diminishing federal support in recent years; and

WHEREAS, The lack of access to quality medical and hospital services adversely affects not only the citizens of rural America, but also the economic development of our rural areas; and

WHEREAS, One hundred forty members of Congress have recognized the deterioration of our rural health resources and have formed the Rural Health Care Coalition; and

WHEREAS, The coalition has steadfastly and effectively represented the health care interests of rural Americans before the U.S. Congress; and

WHEREAS, Mike Synar (D-Okla) has been a vocal and active supporter of rural health issues and a leader in the Rural Health Care Coalition; now therefore be it

*Resolved*, That the OSMA House of Delegates commend Congressman Synar and the Rural Health Care Coalition for supporting rural health care issues; and be it further

*Resolved*, That the OSMA House of Delegates instruct its representatives to the AMA to encourage the AMA House of Delegates to support the proposals of the Rural Health Care Coalition which develop and enhance the medical care system of America's rural areas.

(Late Resolution)

**RESOLUTION 24**

(Adopted)

Introduced by: John R. Alexander, MD, Tulsa  
 Subject: **National Nurses' Day**  
 Referred to: Reference Committee II

WHEREAS, The Oklahoma State Medical Association clearly supports the nursing profession as has been



demonstrated for many years; and

WHEREAS, Physicians and nurses share the same concerns and work together toward common goals; now therefore be it

*Resolved*, That the Oklahoma State Medical Association recognize May 7, 1990, as National Nurses' Day and reaffirm our commitment to continue working with our Oklahoma Nurses Association to achieve shared goals.

(Late Resolution)

## RESOLUTION 25

(Adopted)

Introduced by: Oklahoma Chapter,  
American Academy of Pediatrics  
Subject: **Maternal Substance  
Abuse During Pregnancy**  
Referred to: Reference Committee II

WHEREAS, Maternal substance abuse during pregnancy affects the newborn; and

WHEREAS, The newborn infant exposed to substance abuse during pregnancy has vague symptoms of exposure at birth but experiences long-term consequences; and

WHEREAS, The prevalence of substance abuse during pregnancy in Oklahoma is unknown; now therefore be it

*Resolved*, That the OSMA House of Delegates support the concept that the State of Oklahoma, through the State Health Department, conduct a prevalence study of maternal substance abuse during pregnancy to determine the scope of this problem.

(Late Resolution)

## RESOLUTION 26

(Adopted)

Introduced by: Council on  
Governmental Activities  
Perry A. Lambird, MD, Chairman  
Subject: **Legislative Intervention  
in Implementing the "125%  
Rule"**  
Referred to: Reference Committee III

WHEREAS, Starting in 1991, a provision in the Omnibus Reconciliation Act of 1989 limits a physician's ability to balance bill under Medicare to 125%

of the Medicare prevailing charge or the MAAC, whichever is lower; and

WHEREAS, The implementation of the "125% Rule" will lower reimbursement to most physicians and could drastically reduce reimbursement to primary care physicians and physicians who practice in rural areas; and

WHEREAS, The Resource-Based Relative Value Scale (RBRVS) is designed to enhance rather than lower payment for primary care services; now therefore be it

*Resolved*, That the Oklahoma State Medical Association convey our concern to the Oklahoma Congressional Delegation over the discriminatory effect this rule will have on primary care physicians and physicians who practice in rural areas; and be it further

*Resolved*, That the OSMA petition the AMA for immediate legislative intervention in the United States Congress for elimination or postponement of this rule.

(Late Resolution)

## RESOLUTION 27

(Adopted)

Introduced by: John R. Alexander,  
MD, Tulsa  
Subject: **Continuing Medical  
Education Courses**  
Referred to: Reference Committee II

WHEREAS, The Oklahoma State Medical Association has always encouraged its members to maintain continuing medical competency through a continuum of quality medical education; and

WHEREAS, Through peer review by organizations such as the Board of Medical Licensure and Supervision, the Oklahoma Foundation for Peer Review, the Physicians Liability Insurance Company, Medicare, Medicaid, and hospital peer review committees, physicians are sometimes identified who need specific refresher courses in certain areas of medicine; and

WHEREAS, Locating and arranging for such special courses can be difficult and expensive, now therefore be it

*Resolved*, That the OSMA House of Delegates requests of the Board of Trustees a study of the problems of special continuing medical education

courses, and that a report on a methodology for providing such courses and a mechanism for potential funding be presented at the 1991 OSMA annual meeting.

(Late Resolution)

## RESOLUTION 28

(Adopted)

Introduced by: OSMA Board of  
Trustees  
Subject: **PRO Program Study**  
Referred to: Reference Committee III

WHEREAS, The U.S. Congress established by law Professional Standards Review Organizations (PSRO) in 1974; and

WHEREAS, After evaluation by the General Accounting Office and the Health Care Financing Administration in 1982, the PSRO was determined to be not effectively fulfilling its statutory mission; and

WHEREAS, As a replacement quality control program, the Congress enacted into law in 1984 the Professional Review Organizations (PRO); and

WHEREAS, Since its inception, the PRO program has not been formally evaluated for effectiveness by any external government agency or private organization; and

WHEREAS, A recent report published in the March 9, 1990 issue of the *New England Journal of Medicine* (Vol. 322, No. 10, p. 707) details a study completed by the Institute of Medicine of the National Academy of Sciences that raises provocative questions about the status of government mandated quality assurance programs; and

WHEREAS, The study recommends the restructuring of PRO into a new program — Medicare Program to Assess Quality (MPAC); now therefore be it

*Resolved*, That the OSMA House of Delegates request the American Medical Association to petition the Congress to commission a study to determine the effectiveness of the PRO program, and to specifically evaluate the role of the local hospital and medical community in determining the quality of medical care.

(Late Resolution)

**RESOLUTION 29**

(Adopted as amended)

Introduced by: George H. Hulsey, MD,  
Norman  
Subject: **Environmental Health  
Programs**  
Referred to: Reference Committee II

WHEREAS, The 1990s have been called the decade of the environment, and Earth Day has come and gone; at the same time, the nation's polluters continue to impact public health in a myriad of ways: asthma and air pollution; ozone layer depletion and skin cancer and cataracts; lead poisoning and mental retardation; pesticides, nitrates and nitrites and farmers health problems; and

WHEREAS, Though many scientific questions remain unanswered, it is clear that at a clean environment is conducive to a healthy people, now therefore be it

*Resolved*, That the Oklahoma State Medical Association commends the American Medical Association for its initiative in involving the nation's physicians in America's quest for a "clean" environment — of special note is the Report of the Council on Scientific Affairs' "Stewardship of the Environment"; and that the OSMA urge the physicians of Oklahoma to respond to the challenge of this report individually and through our professional groups by becoming the "spokespersons for environmental stewardship" in both our communities and in our state; and be it further

*Resolved*, That the OSMA encourage its county medical societies to establish active environmental health committees along the line of the committee established in 1989 by the OSMA; and be it further

*Resolved*, That the OSMA urge the Oklahoma State Department of Health to promptly bring in an outside panel of experts to independently evaluate the adequacy of the programs administered by that agency dealing with environmental health, which would include air, water, solid and hazardous waste, as well as any other environmental health activities; the result of such an independent study would provide the OSMA a creditable basis for developing positions on proactive strategies for dealing with environmental health issues.

(Late Resolution)

**RESOLUTION 30**

(Adopted)

Introduced by: Robert M. Bird Society  
Patrick A. McKee, MD, Chairman  
Subject: **Funding for OUHSC  
Library Endowment**  
Referred to: Reference Committee II

WHEREAS, Robert M. Bird, MD, was a preeminent medical scholar and teacher; and

WHEREAS, Doctor Bird was the Dean of the University of Oklahoma College of Medicine from 1970 to 1974; and

WHEREAS, The OSMA recognized Doctor Bird for his outstanding contributions to Oklahoma medicine by presenting him with a Distinguished Service Award in 1976; and

WHEREAS, the Robert M. Bird Society was formed for the purpose of naming the OUHSC Library the "Robert M. Bird Library"; now therefore be it

*Resolved*, That the Oklahoma State Medical Association challenge its members to contribute to a fund-raising program which will create an endowment for the Robert M. Bird Library.

(Late Resolution)

**RESOLUTION 31**

(Adopted)

Introduced by: Physicians' Rights  
Committee, Norman L. Dunitz,  
MD, Chairman  
Subject: **Medicare Fee Disclosure  
For Emergency-Nonelective  
Procedures**  
Referred to: Reference Committee I

WHEREAS, The Omnibus Budget Reconciliation Act of 1986 (OBRA) requires a nonparticipating physician submitting an unassigned claim for a nonemergency/elective surgical procedure over \$500 to disclose to the patient estimated fee and reimbursement information; and

WHEREAS, Failure to do so may result in financial penalties and/or exclusion from the Medicare program; and

WHEREAS, The definition of an

emergency/nonelective procedure is ambiguous and is being applied to many situations that are in fact true emergencies requiring nonelective surgical procedures; and

WHEREAS, This rule interferes with the physician's medical determination and treatment of these emergency cases with inconvenient and obstructive regulations and paperwork; and

WHEREAS, This is one more attempt to try to coerce nonparticipating physicians to become participating; now therefore be it

*Resolved*, That the Oklahoma State Medical Association make a concerted effort to require HCFA to stop requiring the fee disclosure rule for emergency/nonelective situations.

(Late Resolution)

**RESOLUTION 32**

(Not Adopted)

Introduced by: OSMA Physicians'  
Rights Committee, Norman L.  
Dunitz, MD, Chairman  
Subject: **Disclosure of Those Who  
Perform Peer Review**  
Referred to: Reference Committee I

WHEREAS, The medical doctors of this state are continually subjected to peer review performed by the Oklahoma Foundation For Peer Review (OFPR), third party insurance carriers, and other related organizations regarding the quality of care, fees, appropriateness of care, etc., with an approach that appears biased and capricious; and

WHEREAS, There is often little recourse for the medical doctor being reviewed to know whether these peer review entities have made their decisions based upon good medical documents, knowledge, and opinions; and

WHEREAS, These peer review decisions can and often do injure the physician/patient relationship; now therefore be it

*Resolved*, That the Oklahoma State Medical Association petition the Oklahoma Foundation for Peer Review and the state insurance commissioner to require disclosure of the names and qualifications of those individuals who actually perform the peer review activities.



**RESOLUTION OF  
COMMENDATION**  
**James B. Eskridge III, MD**  
(Adopted)

Introduced by the Board of Trustees of the  
Oklahoma State Medical Association

WHEREAS, It is a physician of special dedication who will take time from a busy practice to work to advance the practice of medicine; and

WHEREAS, James B. Eskridge III, MD, Oklahoma City, exhibited this special dedication which served Oklahoma physicians well by providing them with effective representation nationally in the American Medical Association House of Delegates; now therefore be it

*Resolved*, That the physician members of the Oklahoma State Medical Association commend and thank their friend and colleague, Dr. James Eskridge, for his service as a member of the Oklahoma Delegation to the American Medical Association from 1977 to 1989.



Delegates pick up reports before the closing session of the House.

**RESOLUTION OF  
COMMENDATION**  
**Victor L. Robards, Jr., MD**  
(Adopted)

Introduced by the Board of Trustees of the  
Oklahoma State Medical Association

WHEREAS, It is a physician of special dedication who will take time from a busy practice to work to advance the practice of medicine; and

WHEREAS, Victor L. Robards, MD, Tulsa, exhibited this special dedication which served Oklahoma physicians well by providing them with effective representation nationally in the American Medical Association House of Delegates; now therefore be it

*Resolved*, That the physician members of the Oklahoma State Medical Association commend and thank their friend and colleague, Dr. Victor Robards, for his service as a member of the Oklahoma Delegation to the American Medical Association from 1980 to 1989.

**RESOLUTION OF  
COMMENDATION**  
**Arnold G. Nelson, MD**  
(Adopted)

Introduced by the Board of Trustees of the  
Oklahoma State Medical Association

WHEREAS, It is a physician of special dedication who will take time from a busy practice to work to advance the practice of medicine; and

WHEREAS, Arnold G. Nelson, MD, Midwest City, exhibited this special dedication which served Oklahoma physicians well by providing them with effective representation nationally in the American Medical Association House of Delegates; now therefore be it

*Resolved*, That the physician members of the Oklahoma State Medical Association commend and thank their friend and colleague, Dr. Arnold Nelson, for his service as a member of the Oklahoma Delegation to the American Medical Association from 1984 to 1988.

**RESOLUTION OF  
COMMENDATION**  
**James B. Pitts, Jr., MD**  
(Adopted)

Introduced by the Board of Trustees of the  
Oklahoma State Medical Association

WHEREAS, It is a physician of special dedication who will take time from a busy practice to work to advance the practice of medicine; and

WHEREAS, James B. Pitts, MD, Oklahoma City, exhibited this special dedication which served Oklahoma physicians well by providing them with effective representation nationally in the American Medical Association House of Delegates; now therefore be it

*Resolved*, That the physician members of the Oklahoma State Medical Association commend and thank their friend and colleague, Dr. James Pitts, for his service as a member of the Oklahoma Delegation to the American Medical Association from 1983 to 1989.

**RESOLUTION OF  
COMMENDATION**  
**Orange M. Welborn, MD**  
(Adopted)

Introduced by the Board of Trustees of the  
Oklahoma State Medical Association

WHEREAS, It is a physician of special dedication who will take time from a busy practice to work to advance the practice of medicine; and

WHEREAS, Orange M. Welborn, MD, Ada, exhibited this special dedication which served Oklahoma physicians well by providing them with effective representation nationally in the American Medical Association House of Delegates; now therefore be it

*Resolved*, That the physician members of the Oklahoma State Medical Association commend and thank their friend and colleague, Dr. Orange Welborn, for his service as a member of the Oklahoma Delegation to the American Medical Association from 1968 to 1989.

# Reference Committee I

## REPORTS TO THE

## HOUSE OF DELEGATES

### Report of REFERENCE COMMITTEE I

Presented by: Richard L. Hromas,  
MD, Chairman

Mr. Speaker and Members of the House of Delegates, Reference Committee I considered a number of items that were assigned to it and heard excellent testimony. Reference Committee I submits the following report:

#### (1) Report of the Board of Trustees

##### *Recommendation:*

Mr. Speaker, your Reference Committee recommends that the Report of the Board of Trustees be filed for information.

Your Reference Committee commends the Board for its diligent work and decisions made on behalf of the Association and would especially like to commend Dr. Jerry L. Puls, who has done an excellent job as chairman.

#### (2) Supplemental Report of the Board of Trustees

##### *Recommendation:*

Mr. Speaker, your Reference Committee recommends that the Supplemental Report of the Board of Trustees be referred back to the Board of Trustees for further study on several issues.

Your Reference Committee recommends that the Supplemental Report of the Board of Trustees be referred

back to the Board of Trustees to re-study that portion of the report detailing the executive session actions on page 4. The Reference Committee listened to discussion concerning the issues of extending the OSMA Annual Meeting to three days and establishing a branch office. Your Reference Committee recommends that the Board of Trustees restudy these issues to reconsider (1) the three-day meeting be on Friday, Saturday and Sunday; and (2) a branch office not be established.

#### (3) Report A to the Board of Trustees

##### *Recommendation:*

Mr. Speaker, your Reference Committee recommends that Report A regarding the Hospital Medical Staff Section be referred back to the Hospital Medical Staff Section for further study.

Your Reference Committee supports the decision of the Board of Trustees in not accepting the recommendation of the Hospital Medical Staff Section.

#### (4) Report of the Secretary-Treasurer

##### *Recommendation:*

Mr. Speaker, your Reference Committee recommends that the Report of the Secretary-Treasurer be filed for information.

The Reference Committee would

like to commend James D. Funnell, MD, for his excellent report and for his continued efforts to monitor the financial affairs of the Association.

#### (5) Report of the Budget and Audit Committee

##### *Recommendation:*

Mr. Speaker, your Reference Committee recommends that the Report of the Budget and Audit Committee be filed for information.

#### (6) Report of the Council on Planning and Development

##### *Recommendation:*

Mr. Speaker, your Reference Committee recommends that the Report of the Council on Planning and Development be filed for information.

Reference Committee I reviewed an excellent report prepared by Council Chairman Ray V. McIntyre, MD. The report reflects a number of recommendations that were commended by this reference committee.

#### (7) Report of the Constitution and Bylaws Committee

##### *Recommendation:*

Mr. Speaker, your Reference Committee recommends that the Report of the Constitution and Bylaws Committee be adopted with the exception of the section on Election of AMA Delegates and Alternates, Page 3, Line 21 through 55 and Page 4, Lines 1 through 31.

Your Reference Committee heard considerable testimony with reference to voting for AMA Delegates and Alternate Delegates by designated slots. Your Reference Committee felt that most of the testimony supported voting for the AMA Delegates and Alternate Delegates at-large rather than by designated slots. Therefore, we recommend that this section of the report not be adopted.

#### (8) Report of the Physicians Liability Insurance Company

##### *Recommendation:*

Mr. Speaker, your Reference Committee recommends that the Report of the Physicians Liability Insurance Company be filed for information.

Reference Committee I was presented with a detailed report of the



Physicians Liability Insurance Company. Your Reference Committee wishes to commend the PLICO Board of Directors for 10 years of excellent administration of our insurance company.

**(9) Report of the Oklahoma State Medical Association Auxiliary**

*Recommendation:*

Mr. Speaker, your Reference Committee recommends that the Report of the Oklahoma State Medical Association Auxiliary be filed for information.

Mr. Speaker, your Reference Committee would like to commend Mrs. Maureen Bynum, Auxiliary President, for her excellent leadership and dedication to the programs of the Auxiliary.

**(10) Report of Oklahomans Against Lawsuit Abuse Coalition**

*Recommendation:*

Mr. Speaker, your Reference Committee recommends that the Report of Oklahomans Against Lawsuit Abuse Coalition be filed for information.

Mr. Speaker, your Reference Committee commends the coalition for its continued efforts to bring about meaningful tort reform.

**(11) Resolution 3 — Referendum on Continued Mandatory AMA Membership**

*Recommendation:*

Mr. Speaker, your Reference Committee recommends that Resolution 3 be adopted with instructions that the referendum be conducted with education as to the pros and cons of federation unification.

Mr. Speaker, your Reference Committee heard considerable supportive testimony regarding the federation membership and its positive impact on the profession. However, much of the discussion in support of this resolution centered around permitting the membership the opportunity to voice its opinion about unified membership. It is understood that this referendum, while not binding, is an expression of the membership's opinion. Your reference committee was aware of the sensitivity of this issue and felt that the adoption of Resolution 3 was supported by the testimony.

**(12) Resolution 5 — Hold Harmless/Indemnification Clauses**

*Recommendation:*

Mr. Speaker, your Reference Committee recommends that Resolution 5 be adopted.

Your Reference Committee supports the OSMA and PLICO in their efforts to inform the membership about these contractual dangers.

**(13) Resolution 11 — Creation of an Appeal Process**

*Recommendation:*

Mr. Speaker, your Reference Committee recommends that Resolution 11 not be adopted.

Mr. Speaker, it was pointed out during testimony that an appeal process is already available through the OSMA Council on Medical Services.

**(14) Resolution 12 — Single-Zone Reimbursement for PLICO Health Insurance**

*Recommendation:*

Mr. Speaker, your Reference Committee recommends that Resolution 12 be adopted with the deletion of the word "immediate" on line 12 to read as follows:

*"Resolved, That the Oklahoma State Medical Association support the creation of a single reimbursement zone for the State of Oklahoma for PLICO Health."*

**(15) Resolution 17 — Assistance for OSMA Members Involving Disputes**

*Recommendation:*

Mr. Speaker, your Reference Committee recommends that Resolution 17 be adopted.

Your Reference Committee agrees with the intent of this resolution to make the membership aware of the Physicians' Rights Committee.

**(16) Late Resolution 31 — Medicare Fee Disclosure for Emergency-Nonelective Procedures**

*Recommendation:*

Mr. Speaker, your Reference Committee recommends that Resolution 31 be adopted.

Mr. Speaker, your Reference Committee recommends that the Physicians' Rights Committee work to define the term "emergency" surgical procedure in its effort to implement this resolution.

**(17) Late Resolution 32 — Disclosure of Those Who Perform Peer Review**

*Recommendation:*

Mr. Speaker, your Reference Committee recommends that Resolution 32 not be adopted.

Your Reference Committee agrees with the intent of this resolution. However, the committee believes adequate disclosure exists for those physicians being reviewed to appeal the decisions and be dealt with professionally.

Mr. Speaker, your Reference Committee recommends adoption of the Report of the Reference Committee I, as amended, as a whole.

Mr. Speaker, this concludes the report of the Reference Committee I. Your Reference Committee wishes to thank all who participated in the hearing and contributed to the preparation of this report. As Chairman of this Reference Committee, I would like to express my appreciation to the committee members and staff for their time and effort.

Respectfully submitted,  
Richard Hromas, MD, Enid,  
Chairman

Ralph L. Buller, MD, Hydro  
Ray Cornelison, MD, Midwest City  
Stephen Cagle, MD, Oklahoma City  
Douglas Hubner, MD, Tulsa  
Steven Jimerson, MD, Norman  
Edward Tomsovic, MD, Tulsa  
Lyle Kelsey, Staff  
Debbie Thurmond, Staff

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## Report of the BOARD OF TRUSTEES

Subject: **Annual Report**  
Presented by: Jerry L. Puls, MD,  
Chairman  
Referred to: Reference Committee I

### Introduction

The OSMA Board of Trustees has completed three of its regular quarterly meetings for organizational year 1989-90. The fourth meeting, or annual meeting of the board is being held in conjunction with the 1990 annual meeting of the association in Oklahoma City, Oklahoma, at the Marriott Hotel. The proceedings of the annual board meeting will be contained in the

Supplemental Report of the Board of Trustees.

During the past year, the board met in regular sessions on August 27 and November 19, 1989, and February 18, 1990. A quorum was certified for each meeting with an average of seven officers, 17 trustees or alternate trustees, and seven AMA delegates and alternate delegates present.

#### Council and Committee Reports

During each of its meetings, the OSMA Board of Trustees heard reports from each of the association's councils, committees and sections. As these entities also report directly to the House of Delegates, they will not be reported here.

#### PLICO, OFPR, OALA and Auxiliary Reports

Throughout the year, the OSMA Board of Trustees heard reports from PLICO, OALA, OFPR and the Auxiliary during each of its three quarterly meetings. As these organizations will report directly to the House of Delegates, they will not be reported here.

#### Selection of Auditors for OSMA and PLICO

The Board of Trustees at its August 27 meeting approved the accounting firm of BDO Seidman to serve as auditors for both PLICO and the OSMA. Prior to this action, Price Waterhouse served as the OSMA auditors and BDO Seidman as auditors for PLICO.

#### CIGNA Actions

During the August 27 Board of Trustees meeting, the board authorized Dr. John Alexander, as OSMA President, to confirm Mr. Bob Looney as the new trustee for the OSMA/INA trust fund.

#### New Telephone System

During its August 27 meeting, the board approved an expenditure of \$30,000 to replace the outdated telephone equipment at the OSMA headquarters.

#### New Commissions on Dues

During the November 19 Board of Trustees meeting, the board approved a new dues commissions schedule for those county medical societies completing the work necessary to warrant this increase in commissions. It was



Ray V. McIntyre, MD, Kingfisher, JOURNAL editor-in-chief and past OSMA president, addresses the Board of Trustees.

noted that the dues deadlines will remain the same.

#### OSMA Dues

Received By: Commissions	
January 1-January 15	2.5%
January 16-February 15	2.25%
February 16-March 15	2.0%
March 16-March 31	1.75%

#### PLICO — Amendment to Articles of Incorporation

At its November 19 meeting, the Board of Trustees voted to upgrade advisory members of PLICO to full directors. New legislation recently passed has allowed for this change.

#### 1991 Annual Meeting

During the November 19 Board of Trustees meeting, the board voted to approve Shangri-La in Afton, Oklahoma, as the site for the 1991 OSMA annual meeting.

#### Task Force on OSMA Elections

The Board of Trustees, during its February 18, 1990 meeting, amended the name of the Task Force on OSMA Elections to "Task Force on OSMA

Elections for AMA Delegates and Alternate Delegates." The report was approved and forwarded to the Constitution and Bylaws Committee for clarification.

#### Policy for Review of Member Physicians/Hospital Disputes

During the February 18, 1990 Board of Trustees meeting, the board approved the following policy:

The council on Medical Services will create and utilize, as needed, an Ad Hoc Review Committee, for the purpose of resolving hospital staff privileges disputes or other disputes involving practice privileges or credentialing.

#### OSMA-Sponsored Retirement Plan

The February 18 board meeting afforded the Board of Trustees with the opportunity to consider endorsing an OSMA-sponsored retirement plan for member physicians, whereby the AMA Investment and Retirement Program would be endorsed. The board tabled this item until its annual meeting in May.

#### A.H. Robins Award

During the August 27, 1989 Board of Trustees meeting, the 1989 A.H. Robins Award for Community Service was presented to Charles R. Green, MD, Lawton.

The Board of Trustees elected Virgil Dale Matthews, MD, Muskogee, for this award during the February 18, 1990 board meeting, to be presented at the OSMA annual meeting in May.

#### Donald J. Blair Friend of Medicine Award

During the August 27, 1989 Board of Trustees meeting, the 1989 Donald J. Blair Friend of Medicine Award was presented to David Bickham, Executive Director of the OSMA.

The Board of Trustees at its February 18, 1990 meeting elected Mr. Lee Allan Smith of Oklahoma as the recipient of this award, which will be presented at the OSMA annual meeting in May.

#### Life Membership Awards

The following physicians have been awarded life membership in the Oklahoma State Medical Association through application from component



societies, and with the approval of the association's Board of Trustees:

#### **August 27, 1989**

Frank L. Adelman, MD, Enid  
Melvin R. Arthurs, MD, Pawnee  
Duane E. Brothers, MD, Tulsa  
Ben F. Gorrell, MD, Tulsa  
Charles E. Green, MD, Lawton  
Charles K. Holland, MD,  
McAlester  
C. Frank Knox, MD, Tulsa  
Ray E. Spence, MD, Pauls Valley

#### **November 19, 1989**

Nolen L. Armstrong, MD,  
Oklahoma City  
Glen L. Berkenbile, MD, Tulsa  
Robert H. Chappell, MD, Tulsa  
Joe E. Collins, MD, Edmond  
Emil P. Farris, MD,  
Oklahoma City  
Martin J. Fitzpatrick, MD,  
Muskogee  
Robert W. King, Sr., MD,  
Bella Vista, AR  
Robert G. Perryman, MD, Tulsa  
James B. Pitts, Jr., MD,  
Oklahoma City  
Robert Sukman, MD,  
Oklahoma City

#### **February 18, 1990**

Hoard A. Bennett, MD,  
Bartlesville  
Gerald W. Boles, MD,  
Oklahoma City  
Irvin B. Braverman, MD, Tulsa  
Earl M. Bricker, Jr., MD,  
Oklahoma City  
Arthur M. Brown, Jr., MD, Perry  
Thomas D. Burnett, MD, Sapulpa  
Wilson J. Buvinger, MD, Enid  
Walter Cale, MD, Sapulpa  
Francis A. Davis, MD, Shawnee  
William O. Ellifrit, MD,  
Ponca City  
Jack P. Enos, MD, Yukon  
William F. Ewing, MD, Tulsa  
Jack D. Fetzer, MD, Woodward  
A. W. Haddox, MD, Antlers  
Homer D. Hardy, Jr., MD, Tulsa  
Charles M. Harvey, MD,  
Oklahoma City  
Thomas H. Henley, MD,  
Oklahoma City  
John T. Hicks, MD, Lawton  
Sam C. Jack, MD, Lawton  
Julius Lacroix, Jr., MD, Hugo  
John C. Lee, MD, Tulsa  
W. George Long, MD, Purcell  
James R. Lowell, MD,  
Oklahoma City

M. Wilson Mahone, MD,  
Oklahoma City  
Virgil D. Matthews, MD,  
Muskogee  
William A. Morrison, MD,  
Oklahoma City  
Robert A. Nelson, MD, Tulsa  
William J. O'Meilia, MD, Tulsa  
Ira O. Pollock, MD,  
Oklahoma City  
John R. Pollock, MD, Ardmore  
Joseph Salamy, MD, Tulsa  
David I. Schrum, MD, Tulsa  
William B. Scimeca, MD, Tulsa  
Laurence O. Short, MD, Cyril  
J. Harold Tisdal, MD, Clinton  
Robert G. White, MD, Sapulpa  
Claude H. Williams, MD, Okeene

Respectfully submitted,  
Jerry L. Puls, MD, Chairman  
OSMA Board of Trustees

### **Supplemental Report of the BOARD OF TRUSTEES**

Subject: **Supplemental Report**  
Presented by: Sara R. DePersio, MD,  
Vice-Chair

Referred to: Reference Committee I

Mr. Speaker and Members of the House:

The Board of Trustees met at its Annual Meeting yesterday, May 3, at 2:05 PM, and this Supplemental Report reviews the actions taken by the board at this meeting. This report will be referred to Reference Committee I to be considered along with the Annual Report of the Board of Trustees, which is included in the delegates' handbooks.

The board approved the minutes of the February 18 meeting as presented.

Mrs. Maureen Bynum, outgoing Auxiliary President, reviewed the Auxiliary's activities during the past year and announced that Mrs. Sherry Strebel will soon be elected President-Elect of the AMA Auxiliary, which is a first for Oklahoma. Mrs. Bynum closed by thanking the Board of Trustee members for their support throughout the year.

Dr. John R. Alexander presented his last report to the board as outgoing President of OSMA. He noted he had recently talked at county medical soci-

ety meetings in Bartlesville and Clinton. He has continued his commentaries with KTOK Radio and the Oklahoma News Network. Doctor Alexander commended Dr. Billy Dale Dotter's efforts as Chairman of the OSMA/ONA (Oklahoma Nurses Association) Liaison Committee.

Doctor Alexander also attended the AMA Leadership Conference in February and was enthusiastic about the proposal for Health Access America, the chemical abuse education program, and Dr. Everett Koop's talk.

In other activities, Doctor Alexander attended Dr. Charles Harmon's inauguration as President of Tulsa County Medical Society, participated in the Council on Planning and Development meeting, and followed legislative actions and other association activities.

Doctor Alexander thanked the members of the OSMA Executive staff for their help during the year. He then expressed thanks to the chairmen and members of OSMA's various councils, committees and sections, all of which have performed well this year.

Dr. James D. Funnell, Secretary-Treasurer, reviewed OSMA's audit report prepared by Grant-Thornton and the proposed 1990 OSMA Budget, and presented his report to the board. The written report is included in the handbooks under Reference Committee I.

Doctor Funnell noted that this is the first year the OSMA and PLICO accounts are listed both jointly and separately. He stated that assets of OSMA/PLICO have increased from 1988, and that the OSMA/PLICO profit after taxes for 1989 was \$759,124. OSMA's profit was \$73,487, and PLICO's was \$685,637. Doctor Funnell indicated OSMA's assets, excluding PLICO, are about \$2.2 million.

Mr. Dale Neikirk of the C. L. Frates Company explained that PLICO's profit is reported two different ways. In the Grant-Thornton audit report income taxes are treated on a deferred basis; in the PLICO report, because of statutory requirements, they are reported on an equity basis, which accounts for the difference in the profit reports.

Doctor Funnell also mentioned that Senate Bill 462, sponsored by OSMA, would exempt the physicians'

policy fee, which is contributed to reserves, from the Oklahoma Premium Tax.

Doctor Funnell reported that the 14-year period of OSMA's negotiations with CIGNA over the OSMA/INA stabilization fund has led to a settlement, whereby CIGNA will receive 51% of the fund and OSMA will receive 49%, or \$340,000.

Doctor DePersio reported that Dr. C. Alton Brown would present the annual PLICO Report during the Closing Session of the House of Delegates. This report has been assigned to Reference Committee I.

Mr. Jim Williams, Executive Director of the Oklahoma Foundation for Peer Review, presented a verbal report to the board. Mr. Williams stated the Institution of Medicine has developed a study on the quality of care programs, whose recommendations were not well received by the Health Care Financing Administration or by Oklahoma politicians. One recommendation, he noted, would double the cost of the PRO program from \$1 billion to \$2 billion, which does not go over well with budget deficits.

Mr. Williams emphasized the focus on feedback and data driven reporting. The OFPR is looking at other states' internal quality processes for better standardization. During discussion Mr. Williams pointed out due to federal regulations, reviewers cannot be identified except by express permission of the reviewers.

Mr. David Bickham, OSMA's Executive Director, presented his report. He cited a letter from the OFPR requesting OSMA's assistance in recruiting physician consultants to perform review, and said those interested should contact Mr. Williams, Dr. Warren Felton, or Ms. Debbie Hester at the OFPR.

Mr. Bickham cited a report from Dr. J. Darrell Smith, Medical Director for the Physician Recovery Program, and commended Doctor Smith for his excellent work. The program boasts a recovery rate of 90-95%.

The board approved the following list of incumbents for consideration by the House of Delegates for positions on the PLICO Board of Directors:

C. Alton Brown, MD,  
Oklahoma City  
Billy Dale Dotter, MD, Okeene  
C. S. Lewis, Jr., MD, Tulsa

John A. McIntyre, MD, Enid  
Tim K. Smalley, MD, Stillwater  
Kenneth W. Whittington, MD,  
Bethany

The board approved an Executive Committee recommendation to utilize up to \$75,000 of OSMA reserve funds for OSMA headquarters building improvements, and that the OSMA President, Secretary-Treasurer and Executive Director be authorized to pursue these capital expenditure projects.

In further actions, the board reappointed R. C. Scott, MD, Tulsa, for a three-year term as JOURNAL Editor and approved late resolutions for consideration by the House of Delegates. It was noted that two additional county medical societies, Osage and Kay-Noble, were to be listed as co-sponsors for Resolutions No. 3, "Referendum on Continued Mandatory AMA Membership," in Reference Committee I.

The board elected by acclamation Dr. Sara R. DePersio, Oklahoma City, and Dr. Jay A. Gregory, Muskogee, as Chair and Vice-Chair, respectively, of the Board of Trustees.

The following Life Memberships were approved:

Loren V. Baker, MD, Elk City  
Ralph C. Bethea, MD, Claremore  
John W. Bumpus, MD, Bethany  
Jack C. Glasgow, MD,  
Oklahoma City  
Orville U. Holt, MD, Claremore  
David I. Kraft, MD,  
Oklahoma City  
Fred M. Long, MD, Enid  
Kenneth G. Lowe, MD, Panama  
H. Carter Moody, MD,  
Oklahoma City  
David C. Ramsay, MD, Ada  
Rodney D. Steward, MD,  
Oklahoma City

In other business, Dr. William O. Coleman, Chairman of the OSMA Hospital Medical Staff Section, discussed Report A to the Board of Trustees. He noted that the proposed section bylaw revision needs approval of the board. The amendment would allow physicians other than OSMA members to serve as members of the section. After considerable discussion, the question was called, and the motion failed.

In Executive Session the Board of Trustees authorized the extension of the annual meeting of the House of Delegates to three days instead of two

days, and approved the establishment of a branch office.

The Board of Trustees adjourned from its annual meeting at 4:00 PM.

Respectfully submitted,  
Sara R. DePersio, MD  
Vice-Chair of the Board

## Report A to the BOARD OF TRUSTEES

Subject: Hospital Medical Staff  
Section

Presented by: William O. Coleman,  
MD, Chairman  
OSMA Hospital Medical Staff  
Section

Referred to: Reference Committee I

In the last few years the OSMA Hospital Medical Staff Section (HMSS) has not functioned as fully, due to a lack of participation because of the requirement that membership to the HMSS must be OSMA members.

This year, however, the response to the meeting scheduled for May 5, 1990, has been very good. Some of the respondents are DOs or MDs who are not OSMA members.

In order to function effectively, the HMSS recommends to the OSMA Board of Trustees that the section bylaws be revised so that those individuals chosen by the hospital medical staff director or by the vote of the active hospital medical staff be accepted as a member of the HMSS.

The proposed section bylaw revision is as follows:

The Hospital Medical Staff Section of the Oklahoma State Medical Association (OSMA) shall be comprised of OSMA member physicians selected by physician members of the medical staffs of hospitals physicians duly appointed by the chief of the medical staff or elected by a vote of the active staff of each respective hospital. The medical staff of each licensed hospital in the state shall be entitled to one voting representative in the section. The purpose of the section is to provide a direct means to address the relationship among members of the OSMA, hospital medical staffs and hospitals."



## Report of the SECRETARY-TREASURER

Subject: **Annual Report**

Presented by: James D. Funnell, MD

Secretary-Treasurer

Referred to: Reference Committee I

Mr. Speaker, Members of the House:

Two years ago the Board of Trustees and the House of Delegates instructed us to develop a financial statement that reflected the operations of OSMA separate from PLICO. You will remember that because of accounting regulations that went into effect in 1988, our auditors were required to integrate the OSMA and PLICO statements since PLICO is a wholly owned subsidiary. PLICO's operations are of such magnitude that when integrated, OSMA's financials are difficult to isolate and analyze. This is the first year that we have the combined statement. The first section of the report, pages 1 through 18, are the combined financials, both OSMA and PLICO. We have representatives of PLICO and the accounting firm here who can answer questions. But let me cover just a few of the highlights. First, on page 5, please note that assets of OSMA/PLICO are \$56,439,411 as of December 31, 1989. That is an increase over 1988. We don't have comparative numbers since this is the first consolidated statement. The OSMA/PLICO profit after taxes (page 6) for 1989 was \$759,124 that compares to an aggregate loss in 1988.

Now then, over to page 21. OSMA's equity in PLICO is \$4,732,354, which is an increase over 1988 of about \$685,637.

PLICO uses multiple techniques to establish reserves. The inhouse actuaries and claims personnel of C. L. Frates determine on a case-by-case basis the value of claims; Milliman & Robertson, PLICO's internationally known actuaries, also predict the value of claims and establish reserves; our reinsurers have a vested interest in assuring PLICO's reserves are adequate, as does the Insurance Commissioner and our auditors, Grant-Thornton. The bottom line is that I think we have to trust the judgment of our consultants and the PLICO Board as to the accuracy and veracity of PLICO's financial condition. If any-

one has any questions about PLICO's operations, we'll be happy to answer them now.

Otherwise, Mr. Speaker, I would like to move on to pages 20 through 24, which concentrate on OSMA's financial condition as of December 31, 1989. Remember that our fiscal year is the calendar year, so we are already



Otie Ann Fried, OSMA director of state legislation, listens to the discussion in Reference Committee III.

four months into our 1990 operations. The House has authorized us to budget and make expenditures on the basis of last year's budget until the annual meeting of the House of Delegates.

On page 21, the asset section for OSMA indicates an association value, excluding PLICO, of about \$2.2 million. You arrive at that by adding current assets and property and equipment. Likewise, if you look at the equity sections on the same page, you will note that our investment in PLICO is up from last year, which reflects the profits of PLICO. So overall, we've grown (PLICO/OSMA) by about a million dollars. If you've been reading the financial pages on Oklahoma companies, that is not too bad. The Liabilities section looks about the same as in previous years. The deferred dues item is higher in '89 than in '88, but that is because of an accounting technique rather than money. The Deferred Revenue is the

balance in our OALA account. Contributions are funds paid by doctors for support of students at OUHSC.

To summarize, Mr. Speaker, both PLICO and OSMA are growing institutions and are financially healthy.

On page 23 are the Revenue and Expense Statements. Without going into a lot of detail, if you look about 2/3 of the way down the page you see the "Excess of Revenues over Expenses." That figure of \$73,487 is the amount of profit OSMA made in 1989. A little further down on the same page you see a figure of \$685,637, which is the profit PLICO made in 1989.

Page 24 is a Cash Flow Statement that shows where the money came from and where it went.

At this point, Mr. Speaker, I would like to pause and see if anyone has any questions.

There are a few other issues on which I need to report. Behind the audit report is the proposed budget for 1990. The budget is basically a break-even proposal. There are a few increases in some council and committee requests that have been accommodated — the Physician Recovery Committee and the Medical Student Section.

There is also a salary adjustment factor for employees which tracks with the Consumer Price Index. There are no major personnel or program changes that would require an increase in dues, although the Budget will be tight for 1990.

Two more items, and I'll be through, Mr. Speaker. First, each of you insured by PLICO has been paying for the past two years a policy fee of about 30% of your insurance premiums. That fee was necessitated by an adverse Oklahoma Supreme Court opinion that struck down our three-year statute of limitations. The projected "reserve deficit" as determined by our actuaries was about \$25 million, which under current law is subject to the Oklahoma premium tax of 2¼%. Senate Bill 462, sponsored by OSMA, would exempt that contribution to reserves from the tax. It has passed both the House and the Senate and should be on the Governor's desk in the next few days. If the bill is signed, Oklahoma doctors will save almost \$500,000.

Second, Mr. Speaker, we have re-

*(continued on page 335)*

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**Report of Independent Certified Public Accountants**

To the House of Delegates of the  
Oklahoma State Medical Association:

We have audited the accompanying consolidated balance sheet of Oklahoma State Medical Association (an Oklahoma corporation) and Subsidiaries as of December 31, 1989, and the related consolidated statements of revenue and expenses and changes in fund balance and of cash flows for the year then ended. These financial statements are the responsibility of the Association's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An

audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe our audit provides a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Oklahoma State Medical Association and Subsidiaries as of December 31, 1989 and the consolidated results of their operations and their consolidated cash flows for the year then ended in conformity with general accepted accounting principles.

As discussed more fully in Note C to the consolidated financial statements, the liability for losses and loss adjustment expenses ("reserves") recorded by the Association's subsidiary, Physicians Liability Insurance Company ("PLICO"), for its professional medical liability line at December 31, 1989 is approximately \$10,900,000 lower than the amounts contained in the report of PLICO's consulting actuaries at that date. This difference is material to the consolidated financial statements, taken as a whole. The process for setting PLICO's reserves is both complex and subjective. The ultimate liability for losses and loss adjustment expenses cannot be determined at this time.

As required by a new statement of the Financial Accounting Standards Board, the Association consolidated a wholly owned subsidiary previously accounted for by the equity method, as discussed in Note A to the consolidated financial statements.

Grant Thornton  
Oklahoma City, Oklahoma  
March 14, 1990

**Oklahoma State Medical Association and Subsidiaries**

**CONSOLIDATED BALANCE SHEET**

December 31, 1989

<b>Assets</b>	
Cash and cash equivalents (note A6)	\$ 3,679,386
Cash equivalents — restricted (notes A2 and A3)	242,079
Investments, at amortized cost (market value \$49,088,262) (notes A4 and B)	48,757,556
Accounts receivable	785,985
Premiums receivable	193,452
Interest receivable	1,193,696
Reinsurance receivable	458,624
Note receivable (note E)	37,746
Inventory	7,502
Prepaid expenses	156,860
	<u>55,512,886</u>
Property and equipment (notes A9 and H)	
Land	7,808
Building	409,245
Furniture, fixtures, and equipment	147,042
Equipment under capital lease	18,483
	<u>582,578</u>
Less accumulated depreciation and amortization	(100,140)
	482,438
Loan acquisition cost, net of amortization	2,087
Deferred income taxes (notes A8 and F)	442,000
	<u>444,087</u>
	<u>\$56,439,411</u>
<b>Liabilities</b>	
Current portion of long-term debt	\$ 10,592
Checks drawn against future deposits	664,884
Accounts payable (note G)	1,152,513
Unearned premium	992,882
Reinsurance premiums payable (note D)	402,789
Commissions payable	43,986
Management fee payable (note E)	187,666
Income taxes payable	1,483
Losses and loss adjustment expenses (notes A5, C, and D)	46,245,434
Long-term debt (note H)	115,535
Deferred revenue (note A2)	
Assessments	242,079
Contributions	70,687
Deferred membership dues	825,465
	<u>1,138,231</u>
Total liabilities	50,956,995
Contingencies (notes C and D)	—
Fund balance	5,438,416
	<u>\$56,439,411</u>

The accompanying notes are an integral part of this statement.

**Oklahoma State Medical Association and Subsidiaries**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

December 31, 1989

**Note A — Summary of Accounting Policies**

Oklahoma State Medical Association was formed as a not-for-profit organization that provides educational and various other services to the members of the medical profession in the State of Oklahoma. Its wholly owned subsidiary, Physicians Liability Insurance Company ("PLICO"), provides professional medical malpractice liability insurance to doctors who are members of the Association and certain health and accident

**Oklahoma State Medical Association and Subsidiaries**

**CONSOLIDATED STATEMENT OF REVENUES AND EXPENSES AND CHANGES IN FUND BALANCE**

Year ended December 31, 1989

<b>Revenues</b>	
Premiums earned, net of premiums ceded to reinsurers of \$6,329,253	\$41,317,909
Investment income	5,145,232
Membership dues	673,483
Policy fees	246,550
Journal	132,711
Special assessments	75,273
Annual meeting	49,250
Other	72,919
	<u>47,713,327</u>
<b>Expenses</b>	
Losses (note C)	29,563,669
Loss adjustment expenses (note C)	9,769,435
Operating expenses (note E)	7,375,141
Journal	160,872
Annual meeting	83,492
	<u>46,952,609</u>
Revenues over expenses before income taxes and extraordinary item	760,718
Income taxes (note F)	215,594
Revenues over expenses before extraordinary item	545,124
Extraordinary item — utilization of net operating loss carryforward (note F)	214,000
Excess of Revenues Over Expenses	759,124
Fund balance, beginning of year	4,724,292
Fund balance, end of year	<u>\$ 5,483,416</u>

The accompanying notes are an integral part of this statement.



insurance to such doctors and their staffs. Its other wholly owned subsidiary, Member Services Corporation, provides other miscellaneous services to members of the Association.

Effective December 31, 1989, the Association revised its consolidation policy to conform to Statement of Financial Accounting Standards No. 94, "Consolidation of All Majority-owned Subsidiaries." The consolidated financial statements now include the accounts of both wholly owned subsidiaries. Prior to the change the Association had consolidated only Member Services Corporation. As a result of the consolidation of PLICO, it is no longer meaningful to prepare a consolidated balance sheet in which current and noncurrent assets and liabilities are displayed. Instead, the unclassified format utilized by insurance companies has been adopted.

A summary of the significant accounting policies consistently applied in the preparation of the accompanying financial statements follows.

**1. Revenue Recognition.** Membership dues are recognized as revenue ratably over the membership period. Insurance premiums are recognized as income over the terms of the policies on a pro rata basis. Policies are written on a calendar year basis; unearned premium relates to premiums received in advance for policy periods beginning on January 1, 1990.

**2. Deferred Revenue.** The Association restricts those funds received through gen-

eral assessments or voluntary contributions that are restricted as to use. As expenditures are made for the various restricted purposes, appropriate equivalent amounts of revenue are recognized as income.

**3. Cash Equivalents — Restricted.** This account represents restricted assessments received for financing of tort reform activities.

**4. Investments.** Investments in marketable equity securities (held by PLICO) are carried at the lower of cost or market. Investments in bonds and other debt instruments are carried at amortized cost. No provision is made for declines in the fair market value of such debt instruments below amortized cost unless such declines are judged to be other than temporary, as PLICO has both the intent and capacity to hold the investments to their maturity dates.

**5. Liabilities for Losses and Loss Adjustment Expenses.** PLICO's liability for insurance losses and loss adjustment expenses is based upon: (1) accumulation of case estimates for losses reported prior to the close of the accounting period; (b) estimates of incurred but unreported losses; and (c) estimates of expenses for investigating and adjusting claims. The estimated liability for losses and loss adjustment expenses is discounted to its estimated present value.

**6. Cash Equivalents.** For purposes of the statement of cash flows all highly liquid debt instruments purchased with a maturity of three months or less are considered to be cash equivalents.

**7. Statutory Accounting Requirements.** PLICO's statutory capital and surplus was \$4,153,340 at December 31, 1989. The amount of statutory capital and surplus necessary to satisfy regulatory requirements was \$4,000,000 at December 31, 1989. The differences between capital for financial reporting purposes and capital for statutory purposes relates principally to the recording of deferred income tax expense or benefits for financial reporting purposes, whereas only income taxes currently payable or refundable are recorded for statutory purposes.

**8. Income Taxes.** The Association was organized as a not-for-profit organization and, as such, is exempt from income taxes under Section 501(c)(6) of the Internal Revenue Code. The Association does pay income taxes on unrelated business income.

PLICO provides for income taxes based upon income or loss reported for financial statement purposes. Deferred income taxes are provided on differences in timing or reporting of certain items of income and expense in the financial statements and the income tax returns. Such timing differences relate principally to unearned premium and to differences in the method of discounting reserves for income tax purposes.

**9. Property and Equipment.** Property and equipment, using the capitalized leases, are recorded at cost. Depreciation is computed using the straight-line method over the estimated useful lives of the assets.

#### Note B — Investments

Investments at December 31, 1989 consist of the following:

Certificates of deposit	\$ 150,000
Corporate bonds	15,962,768
Government agency bonds	32,644,788
	<u>\$48,757,556</u>

To conform with statutory requirements, the Oklahoma Insurance Commission held PLICO's certificates of deposits of \$150,000 at December 31, 1989.

#### Note C — Liability for Losses and Loss Adjustment Expenses

A substantial portion of PLICO's business relates to professional medical liability insurance. The insurance of these types of risks involves lengthy claim development periods and claims having long "tails," or periods from the date of the occurrence of an incident to the date a claim is actually settled and paid. PLICO follows a method of accounting for its liability for losses and loss adjustment expenses known as "discounting reserves." This practice essentially results in a reduction of the carrying value of the liability for losses and loss adjustment expenses ("reserves") based upon the income to be earned on the fixed income investment portfolio which is maintained to cover such liability. In the opinion of management, this method results in a more realistic statement of reserves based upon the earnings of the related investment portfolio. The carrying amount of PLICO's reserves has been reduced by approximately \$17,500,000 at December 31, 1989 by discounting the estimated gross reserves by 8.0% which is less than the yield rate of the fixed income investment portfolio.

PLICO uses a firm of consulting actuaries to review its evaluation of the required level of reserves for losses and loss adjustment expenses each year. At December 31, 1989, the consulting actuaries recommended that such reserves for professional medical malpractice liability insurance line, which constitutes the core of PLICO's business, be set at approximately \$10,900,000 higher than the reserve levels recorded by PLICO at that date, on a discounted basis. The principal elements of the difference in each year related to (1) assumptions used in determining losses related to commuted reinsurance; (2) assumptions used in estimating losses that will develop beyond nine years from the occurrence of an event; and (3) the effects of these assumptions on the requisite level of loss adjustment expenses.

The process for setting PLICO's reserves is both complex and subjective, involving consideration of a number of variable factors. Management believes that the reserves determined by the consulting actuaries are extremely conservative, that an adequate basis exists in both theory and fact for the lower amount of reserves actually recorded and that the recorded reserves will be adequate to cover the losses and loss adjustment expenses to be incurred. The consulting actuaries acknowledge that while the assumptions used by PLICO are not as conservative as those used in the actuarial report, the resulting estimate is within range of possible outcomes which includes values as low or lower than those projected by PLICO as well as values much higher than those contained in the actuarial report. The ultimate liability for losses and loss adjustment expenses cannot be determined at this time.

Management of PLICO recognizes that its liability for losses and loss adjustment expenses should be increased, at least to some degree, and that additional capital may ultimately be required to pay claims and related expenses upon their ultimate resolution. Accordingly, the board of directors have approved a plan whereby additional revenue,

### Oklahoma State Medical Association and Subsidiaries

#### CONSOLIDATED STATEMENT OF CASH FLOWS

Year ended December 31, 1989

Cash flows from operating activities	
Excess of revenues over expenses	\$ 759,124
Adjustments to reconcile excess of revenues over expenses to net cash provided by operating activities	
Amortization of net bond discount	(187,858)
Depreciation and amortization	20,284
Gain on sale of bonds	(95,889)
Loss on sale of assets	5,286
Deferred income taxes	(442,000)
(Increase) decrease in	
Accounts receivable	(176,623)
Premiums receivable	56,355
Reinsurance receivable	(458,624)
Other assets	155,058
Interest receivable	(298,260)
Prepaid income taxes	(137,015)
Inventory	(5,569)
Increase (decrease) in	
Checks drawn against future deposits	4,390
Unearned premiums	(2,972,396)
Reinsurance premiums payable	(654,270)
Commissions payable	(130,381)
Management fee payable	(474,041)
Accounts payable	975,239
Liability for losses and loss adjustment expenses	6,534,676
Other liabilities	1,483
Deferred revenue	183,985
Net cash provided by operating activities	2,662,954
Cash flows from investing activities	
Proceeds from sale of bonds	25,182,707
Proceeds from maturities of certificates of deposit	150,000
Purchase of bonds and certificates of deposit	(34,890,943)
Collections on note receivable	85,338
Purchase of fixed assets	(49,631)
Net cash used in investing activities	(9,522,529)
Cash flows from financing activities	
Payments on long-term debt	(9,179)
Net Decrease in Cash and Cash Equivalents	(6,868,754)
Cash and cash equivalents at beginning of year	10,548,140
Cash and cash equivalents at end of year	<u>\$ 3,679,386</u>
Cash paid during the year for:	
Interest	\$ 6,760
Income taxes	613,477

#### Noncash investing activities:

The Association acquired equipment under capital lease obligations totaling \$17,679.

The accompanying notes are an integral part of this statement.



in the form of special policy fees, will be remitted each year, at least through 1991. As a result, special policy fees of \$7,552,432 were received during 1989 and included in premium income, and a like amount will be received in each of the next two years. Management believes that such additional revenues, together with earnings thereon, will be sufficient to enable PLICO to raise its reserves to adequate levels in future years and to meet reasonably foreseeable business needs.

#### Note D — Reinsurance

PLICO has reinsured portions of its medical malpractice liability insurance coverages to limit the amount of losses on individual claims. Under the terms of the reinsurance agreement, risks in excess of \$400,000 and up to \$5,000,000 are reinsured pursuant to a reinsurance agreement providing for total maximum aggregate payments of \$6,000,000 per year, subject to certain experience adjustments. Maximum aggregate reinsurance coverage available at December 31, 1989, giving effect to the experience adjustments, is \$22,000,000.

Accident and health risks are reinsured in excess of \$400,000 to a maximum of \$2,000,000 per person. Written premium is ceded to the reinsurer based on a flat rate per insured.

Loss reserves have been reduced by \$200,000 at December 31, 1989, in anticipation of amounts recoverable from reinsurers. PLICO is contingently liable for claims in excess of the retention limit, should the reinsurance companies be unable to meet their contractual obligations. Management believes the reinsurers will continue to meet their contractual obligations, and PLICO has never suffered a loss because of defaults by reinsurers.

#### Note E — Related Party Transactions

PLICO has a management agreement with C. L. Frates & Co. ("Frates"), a licensed insurance agency. The agreement provides for management of PLICO by Frates employees, some of whom also serve as officers. The agreement expires in 1991, and provides for a fee to Frates of 11% for professional liability, and 10% for accident and health, of gross premiums collected. Frates is responsible for all operating expenses except agents' commissions, income taxes and premium taxes, licensing fees, directors' fees and travel, claims, allocated claim expenses, and reinsurance premiums. Management fees paid to Frates for the year ended December 31, 1989 aggregated \$4,261,183.

At December 31, 1989, PLICO had a balance of \$37,746 due pursuant to an installment note receivable from Oklahoma Foundation for Peer Review, an affiliate of Oklahoma State Medical Association. This note is due in monthly installments of \$7,710 (including interest) through June, 1990, and is secured by office equipment.

PLICO uses Frates for negotiating its reinsurance contract. For this service, PLICO paid \$300,000 in 1989.

#### Note F — Income Taxes

The components of income tax expense for the year ended December 31, 1989 were as follows:

Currently payable — Federal	\$ 657,594
Deferred — Federal	(442,000)
Total taxes on income	\$ 215,594

Deferred taxes resulting from timing differences in the recognition of income and expense for tax and financial reporting purposes. The sources of these differences and the tax effect of each as of December 31, 1989 were as follows:

Timing difference	
Financial income over taxable income due to 20% of change in unearned premium	\$ 211,300
Financial income under taxable income due to 1/6 of 20% of the 12/31/86 unearned premium	(29,600)
Financial income under taxable income due to discounting reserves for tax purposes	\$(623,700)
Total deferred tax (benefit)	\$(442,000)

The total provision for income taxes differs from 34% of income before income taxes in 1989 as summarized below:

	Amount	Percent
Income taxes at maximum federal statutory rate	\$258,644	34.0 %
OSMA income exempt from income taxes and other, net	(43,050)	(5.7)%
Total taxes on income	\$215,594	28.3 %

The extraordinary item in the 1989 financial statements represents the income tax benefits resulting from the utilization of a net operating loss carryover by PLICO for financial reporting purposes. For income tax purposes, PLICO also utilized the remainder of its tax net operating loss carryforwards of approximately \$631,000. At December 31, 1989, PLICO had remaining net operating loss carryforwards for financial purposes of approximately \$1,100,000 for use in future years. For income tax purposes, no unused net operating loss carryforwards remained at December 31, 1989.

The Financial Accounting Standards Board has issued Statement of Financial Accounting Standards No. 96 entitled "Accounting for Income Taxes" (SFAS 96) which changes the way a business enterprise accounts for income taxes in its financial statements. Among other things, SFAS 96 specifies that deferred income taxes be computed using the liability method, based upon amounts actually anticipated to be paid or recovered in future periods.

PLICO plans to adopt the provisions of SFAS 96, which are mandatory for fiscal years beginning after December 15, 1991, in preparing its 1992 financial statements. Because implementation of SFAS 96 involves certain complex determinations and

analyses which have not yet been completed, the effects of adopting the new rule cannot be reasonably determined at this time.

#### Note G — Accounts Payable

The following is a summary of the accounts payable at December 31, 1989:

Trade	\$1,040,103
Dues	95,403
Leebron Memorial Fund	6,842
Other	10,165
	<u>\$1,152,513</u>

#### Note H — Long-Term Debt

The following is a summary of long-term debt at December 31, 1989:

Note payable to a company, collateralized by real estate; payable in 180 monthly installments of \$1,448, including interest at 10%, plus one payment of \$69,548 due in 1994	\$108,448
Capitalized leases, collateralized by certain equipment; payable in monthly installments of \$247-\$310, including interest from 13%-20%, through 1994	17,679
	126,127
Less current portion	(10,592)
	<u>\$115,535</u>

The scheduled maturities of the long-term debt are as follows:

1990	\$ 10,592
1991	12,551
1992	13,733
1993	12,435
1994	76,816
	<u>\$126,127</u>

#### Note I — Retirement Plan

OSMA has a defined benefit pension plan which covers OSMA staff employees who are twenty-two years of age or older and have at least six months of service. The plan has a fiscal year ending May 31. No expense was incurred in 1989. The actuarial present value of the accumulate benefits to participants of the plan and the net assets available for those benefits as of June 1, 1989 is as follows:

Actuarial present value of the accumulated plans benefits	
Vested	\$178,678
Nonvested	11,136
	<u>\$189,814</u>
Net assets available for benefits	<u>\$304,102</u>

The Financial Accounting Standards Board has issued Statement of Financial Accounting Standards No. 87 "Employers' Accounting for Pensions" ("FAS 87"). Among other things, FAS 87 requires the use of a standardized method for measuring net periodic pension cost over the employees' service lives and the recognition of a liability when the accumulated benefit obligation exceeds the fair value of plan assets. The Association plans to adopt the provisions of FAS 87 with the plan year beginning June 1, 1989. However, due to the complexities of the calculation that will be required to implement FAS 87, the effect on the Association's financial statements is neither known nor reasonably estimable at this time.

#### Note J — Commitments

The Association has various noncancelable lease agreements for automobiles. The leases are for 24-month periods expiring in 1990. The minimum future lease commitments during 1990 are \$6,313. Rent expense was \$11,448 for the year ended December 31, 1989.

#### Note K — Professional Liability Stabilization Program

In 1976, the Association established a Professional Liability Stabilization Program by assessing its member physicians a 15% surcharge on their basic professional liability policies. The purpose of the program was to avoid an additional 15% increase in premiums on the member physicians professional liability policies.

This money from the assessment was placed in a trust account to secure future losses on claims incurred by the insurance carrier and thus is not included in the financial statements of the Association. As of December 31, 1989, the balance on deposit was \$693,816. The Association has been negotiating the disposition of these funds and, subsequent to December 31, 1989, an agreement was reached whereby the Association will receive 49% of the fund balance, approximately \$340,000. The Association will recognize income in 1990 for the amount received.



**Report of Independent Certified Public Accountants  
on Supplemental Information**

To the House of Delegates of the  
Oklahoma State Medical Association

Our audit was made for the purpose of forming an opinion on the basic financial statements taken as a whole of Oklahoma State Medical Association and Subsidiaries as of and for the year ended December 31, 1989, which are presented in the preceding section of this report. The supplemental information for Oklahoma State Medical Association as of and for the year ended December 31, 1989, presented hereinafter, is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements. Generally accepted accounting principles require that the accounts of all majority owned subsidiaries be consolidated. The aforementioned supplemental information presents the investment of the Association's subsidiary, PLICO, using the equity method of accounting, which is not in conformity with generally accepted accounting principles. Because of the materiality of this departure, in our opinion, the 1989 supplementary information does not present fairly, in

conformity with generally accepted accounting principles, the information set forth therein. The supplemental information as of and for the year ended December 31, 1988 was taken from the related 1988 basic financial statements, which were audited by other auditors whose report dated April 12, 1989 stated that because of the use of the equity method of accounting for PLICO as discussed above, those 1988 financial statements did not present fairly the financial position, results of operations, or cash flows of Oklahoma State Medical Association in conformity with generally accepted accounting principles.

Grant Thornton  
Oklahoma City, Oklahoma  
March 14, 1990

Oklahoma State Medical Association		
CONSOLIDATED BALANCE SHEET		
December 31,		
	1989	1988
<b>Assets</b>		
<b>Current Assets</b>		
Cash and cash equivalents	\$ 618,231	\$ 575,454
Cash equivalents -- restricted	242,079	293,500
Accounts receivable	785,985	609,362
Inventory	7,502	1,933
Prepaid expenses	18,603	10,038
<b>Total current assets</b>	<b>1,672,400</b>	<b>1,490,287</b>
<b>Property and Equipment</b>		
Land	7,808	7,808
Building	409,245	393,963
Furniture, fixtures, and equipment	147,042	139,147
Equipment under capital lease	18,483	15,330
	582,578	556,248
<b>Less accumulated depreciation and amortization</b>	<b>(100,140)</b>	<b>(115,989)</b>
	482,438	440,259
<b>Equity in Unconsolidated Subsidiary</b>	<b>4,732,354</b>	<b>4,046,717</b>
<b>Other Assets</b>		
Loan acquisition costs, net of amortization	2,087	2,526
	<u>\$6,889,279</u>	<u>\$5,979,789</u>
<b>Liabilities and Fund Balance</b>		
<b>Current Liabilities</b>		
Current portion of long-term debt	\$ 10,592	\$ 9,179
Accounts payable	140,022	132,203
Income taxes payable	1,483	—
Deferred membership dues	825,465	648,630
<b>Total current liabilities</b>	<b>977,562</b>	<b>790,012</b>
<b>Long-Term Debt</b>	<b>115,535</b>	<b>108,448</b>
<b>Deferred Revenue</b>		
Assessments	242,079	293,500
Contributions	70,687	63,537
	312,766	357,037
<b>Fund Balance</b>		
Fund balance attributable to OSMA operations	6,654,434	6,580,947
Accumulated deficit attributable to subsidiary	(1,171,018)	(1,856,655)
	<u>5,483,416</u>	<u>4,724,292</u>
	<u><b>\$ 6,889,279</b></u>	<u><b>\$ 5,979,789</b></u>

Oklahoma State Medical Association		
CONSOLIDATED STATEMENTS OF REVENUES AND EXPENSES AND CHANGES IN FUND BALANCE		
Year ended December 31,		
	1989	1988
<b>Revenue</b>		
Membership dues	\$ 673,483	\$ 551,165
Journal	132,711	138,893
Annual meeting	49,250	48,568
Special assessments	75,273	73,591
Interest and other	173,964	140,745
	1,104,681	952,962
<b>Expenses</b>		
General membership	785,236	707,512
Journal	160,872	169,395
Annual meeting	83,492	81,860
	1,029,600	958,767
<b>Excess of revenues over expenses before equity in net earnings (loss) of unconsolidated subsidiary and before provision for income taxes</b>	<b>75,081</b>	<b>(5,805)</b>
<b>Provision for income taxes</b>	<b>1,594</b>	<b>1,351</b>
<b>Excess of revenues over expenses before equity in net earnings (loss) of unconsolidated subsidiary</b>	<b>73,487</b>	<b>(7,156)</b>
<b>Equity in net earnings (loss) of unconsolidated subsidiary</b>	<b>685,637</b>	<b>(99,301)</b>
<b>Revenues over (under) expenses</b>	<b>759,124</b>	<b>(106,457)</b>
<b>Fund balance, beginning of year</b>	<b>4,724,292</b>	<b>4,830,749</b>
<b>Fund balance, end of year</b>	<b>\$5,483,416</b>	<b>\$4,724,292</b>

**Oklahoma State Medical Association**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**

Year ended December 31,

	1989	1988
Cash flows from operating activities		
Revenues over (under) expenses	\$ 759,124	\$(106,457)
Adjustments to reconcile revenues over (under) expenses to net cash provided by operating activities		
Depreciation	20,284	19,368
Equity in (earnings) loss of subsidiary	(685,637)	99,301
(Increase) decrease in		
Membership dues receivable	(176,623)	24,797
Loss on sale of fixed assets	5,286	—
Inventory, prepaid, and other assets	(14,134)	3,634
Increase (decrease) in		
Accounts payable and other liabilities	9,302	27,093
Deferred membership dues	183,985	(6,715)
Decrease in deferred revenue	—	(67)
Net cash provided by operating activities	101,587	60,954
Cash flows from investing activities		
Additions to property and equipment	(49,631)	(2,893)
Cash flows used in financing activities		
Reductions in notes payable	(9,179)	(9,375)
Net increase in cash and cash equivalents	42,777	48,686
Cash and cash equivalents at beginning of year	575,454	526,768
Cash and cash equivalents at end of year	<u>\$ 618,231</u>	<u>\$ 575,454</u>
Cash paid during the year for:		
Interest	\$ 6,799	\$ 12,847
Income taxes	121	4,298

*Noncash investing activities:*

The Association acquired equipment in 1989 under capital lease obligations totaling \$17,679.

**OSMA PROPOSED BUDGET**  
**1990**

**General Expenses**

Salaries	\$ 432,843
Awards & Contributions	3,000
Data Processing	25,000
Depreciation & Amortization	20,000
Dues & Subscriptions	7,500
Equipment Rental	20,376
In-State Travel	1,500
Insurance	65,457
Interest	13,000
Legal & Professional	12,000
Loss Prevention	50,000
Office Supplies	25,000
AMA Convention	65,000
Payroll Taxes	36,789
Pension Costs	42,000
Postage & Shipping	50,000
Repairs & Maintenance	15,000
Services	4,000
Staff & Officers	40,000
Telephone & Utilities	45,000
County Dues Commission	15,000
Other	2,500
Total General Expense	<u>\$ 990,965</u>

**Council and Program Expenses**

State Legislation	\$ 75,000
Governmental Activities	28,500
Medical Education	2,000
Medical Services	1,500
Member Services	1,500
Planning & Development	3,000
Professional & Public Relations	45,000
Public & Mental Health	1,000
Hospital Medical Staff	1,000
Resident Activities	1,000
Student Activities	11,000
Young Physician	6,000
Auxiliary Activities	8,000
Physician Recovery	100,000
AMA Delegates	5,000
Total Council & Program Expense	<u>\$ 289,500</u>

**OSMA PROPOSED BUDGET**  
**1990**

**Revenues**

Dues	\$ 680,000
Interest & Commission	160,000
Building Lease	15,000
Membership Directory	25,000
Computer Labels	10,000
Contract with Subsidiary (PLICO)	350,000
Income from Subsidiary (Member Services)	25,000
Contract with OUHSC-ODH	15,000
Total Revenue	<u>\$1,280,000</u>

**Expenses**

General Administration	\$ 990,965
Council	289,500
Journal	(5,000)
Annual Meeting	—0—
Total Expenses	<u>\$1,275,465</u>
Net Excess Revenue over Expense	<u>\$ 4,535</u>

**OSMA PROPOSED BUDGET**  
**1990**

**Journal**

Revenue	\$125,000
Expenses	120,000
	<u>\$ 5,000</u>

**Annual Meeting**

Revenue	42,000
Expenses	42,000
	<u>\$ —0—</u>



(continued from page 329)

ported consistently over the past 14 years on the status of the OSMA/INA stabilization fund. That fund, created in 1976, initially had about \$175,000 paid by INA-insured physicians for the purpose of indemnifying INA in the event of malpractice losses in excess of those projected. The Trust established to administer the fund was primarily managed by the OSMA. On expiration of the Trust, CIGNA, INA's successor company, demanded the entire fund of about \$500,000. Our Executive Director refused to release the money on the grounds that INA had not complied with the conditions of the Trust. After years of negotiations, we finally agreed to a settlement. OSMA received 49% of the fund and INA 51%. Our share is about \$340,000. So we now have a surplus that is comfortable for an association our size and gives us an opportunity to make some much needed capital improvement.

Personally, I'm in a little bit of a quandary. It has been suggested by Mike Sulzycki that I take a large portion of the windfall and bet on Mister Frisky, who is a sure winner in the Kentucky Derby Saturday. Robert Baker wants us to invest in a chain of OSMA office/restaurants in eastern Oklahoma. Ray McIntyre and Susan Records want to start a National Enquirer-style medical journal. Otie Ann Fried thinks we ought to put a dome on the Capitol, and the office secretaries want a Jacuzzi. David Bickham has promised that he'll tell me where the money is shortly after his return from Las Vegas.

That concludes my report.

Respectfully submitted,  
James D. Funnell, MD  
Secretary-Treasurer

## Report of the COUNCIL ON PLANNING AND DEVELOPMENT

Subject: Annual Report  
Presented by: Ray V. McIntyre, MD  
Referred to: Reference Committee I

### Introduction

The Council on Planning and Development is charged with the re-



Robert J. Weedn, MD, Duncan, talks with colleagues seated behind him in the House of Delegates.

sponsibility of studying and recommending long-range objectives for the OSMA and assessing and making recommendations regarding the resources and programs necessary to reach the objectives. Council membership consists of all of the OSMA's general officers, the delegates and alternate delegates to the AMA, and the chairman of all other association councils and committees. This puts it in the position of having access to the best possible information for long-range objective study.

The Council on Planning and Development met on March 9-11, 1990, at Roman Nose State Park.

### Council Goals and Recommendations

The Councils presented their ideas for long-range goals for discussion. The Council on Planning and Development made the following recommendations to be considered by the OSMA House of Delegates during the 1990 Annual Meeting.

(1) **Council on Public and Mental Health:** The Council discussed at length the AMA Health Access America Plan.

*Recommendations:* The Council recommends that the AMA Health Access America Plan be supported in concept and further study the plan on how

it would apply to Oklahoma. The Council on Planning and Development recommends that the AMA Health Access America Plan be forwarded to the OSMA Board of Trustees for their recommendation to the OSMA House of Delegates.

(2) **Council on Professional and Public Relations:** The Council discussed the issues of advertising for physicians and health institutions and Rule 23.

*Recommendation:* The Council discussed the Federal Trade Commission constraints on advertising and recommended to the Council that they exercise caution in taking any position regarding this issue.

(3) **Hospital Medical Staff Section:** William Coleman, MD, Section Chairman, announced the HMSS Meeting scheduled during the OSMA Annual Meeting in May. The OSMA/HMSS will host a breakfast meeting on Saturday, May 5, 1990, from 7:30 AM-9:00AM at the Marriott. All hospitals have been contacted and were encouraged to send a physician representative. OSMA has received an excellent response.

*Recommendation:* The Council recommends that the HMSS continue to increase membership and participation.

(4) **Council on Medical Education:** The Council discussed the resurveys of institutions, health education programs, medical education seminars and the Physician Recognition Award. The Physician/Nurse Committee has met twice, enhancing communications between the two professions. The Committee is taking positive steps toward common goals. John Alexander, MD, Lofty Basta, MD, William Hughes, MD, and Chairman Billy Dotter, MD, were commended for their work on the Committee.

*Recommendation:* The Council on Medical Education will continue to afford physicians with opportunities to obtain medical education through OSMA sponsored seminars. The Council was asked to pursue the creation of seminars from child abuse to specialty specific seminars, as well as PLICO.

(5) **Council on State Legislation and Regulation:** Due to the shorter legislative session, it was noted that the Council's schedule now requires more work in the interim in order to

respond quickly to legislature demands. Specific long-range goals were discussed and are listed below.

*Recommendations:*

(A) The Council on State Legislation should meet four times during the legislative session. When the Legislature is not in session the Council should meet on an "as needed" basis. One meeting in the fall should be scheduled outside of Oklahoma City.

(B) The Council may function as a subcommittee and not meet as a committee of the whole when the Legislature is not in session.

(C) Committee work done by the Council when the Legislature is not in session should be to facilitate both long-term and short-term legislative goals.

(D) The Council should identify short-term issues that will be on the upcoming legislative agenda and be responsible for preparatory work to be presented before the Legislature.

(E) The Council should identify long-term issues that will be before our Legislature in the next five to ten years. Preparatory work should be done in anticipation of complex issues, positions should be taken, and an educational process should begin with physicians and the Legislature.

(F) The Council should identify medical issues that are not being addressed by the Legislature and assume a leadership role in addressing those issues.

(G) The composition of the Council should include the Chairmen of the other Councils at the State Medical Association. All introduced legislation which is germane to another Council should be referred to that Chairman for review prior to each meeting of the Council.

(H) When the Legislature is in session, two meetings each year should be held outside of Oklahoma City.

(I) The Council should provide the Association support in the task of putting all physicians and their legislative districts on computer.

**(6) Council on Government Activities:** The Council reviewed the activities of this Council and discussed at length the effects of the recently passed Deficit Reduction Act as well as the proposed FY 91 Budget. The specific long-range goals of the Council on Governmental Activities are listed below.

*Recommendations:*

(A) To continue the OSMA Delegation visits to Washington, DC, to assure that the views of Oklahoma physicians are heard.

(B) To obtain a single Medicare Reimbursement zone in Oklahoma. The Council will continue to work with HCFA, Aetna Medicare and the United States Congress to achieve this goal.

(C) To maintain a strong relationship with the AMA Washington office and their lobbyists in an effort to provide sound grass roots support for medicine's legislative agenda.

(D) To implement a series of meetings between Oklahoma physicians and our Congressional delegation to be held in various locations throughout Oklahoma.

(E) To strengthen the relationship between the OSMA and the various medical specialties in an effort to work toward common legislative goals.

(F) To continue to review and make comment on all health related Congressional and federal regulation measures. A specific item for careful review will be the Fiscal Year 91 Budget.

(G) To maintain open communication with our Congressional delegation's health aides on a weekly basis.

(H) To increase the flow of money to Oklahoma under the RBRVS.

**(7) Council on Member Services:** The Council was given an excellent report from the Council on Member Services.

The goals of this Council will be to continue to research additional insurance programs for OSMA members. The Council intends to offer quality retirement and investment programs for OSMA members.

*Recommendations:*

(A) Survey other state medical associations to determine additional opportunities to generate non-dues revenue.

(B) The Council will continue to develop and offer audiocassette tapes on most of the seminars that are sponsored by OSMA.

**(8) Council on Medical Services:** The Council reported its numerous activities during the year.

*Recommendations:*

(A) The primary activity of the Council is relieving and adjudicating various types of grievances between

physician and patient, or physician and third party carrier.

(B) Special ad hoc review of disputes between a member physician and hospital.

(C) Continue improvement of the relationship between this Council and the Board of Medical Licensure and Supervision and PLICO Loss Prevention Committee.

**(9) Oklahoma Medical Political Action Committee:** The Council discussed the recently completed Political Education Seminars held in Oklahoma City and Tulsa on March 7 and 8, 1990. It was noted that these seminars were well attended and provided the participants with excellent information.

*Recommendations:*

(A) To increase membership to 50% of total OSMA membership. 1989 membership figures were 27% of OSMA membership.

(B) To increase the political involvement and awareness of Oklahoma physicians and spouses through the sponsorship of political education seminars. These seminars put on in conjunction with the AMA, would educate OSMA membership in every aspect of the electoral process.

(C) To study the issue of Campaign Reform and its effect on OMPAC. The exploration of future contribution mechanisms must be explored as PACs will continue to be attacked and limited in their abilities.

(D) To increase student and resident involvement in the political process.

(E) To recruit physicians, spouses, and friends of medicine to run for public office.

(F) To obtain a seat on the AMPAC Board of Directors.

(G) To consider the possibility of hosting candidate forums.

(H) To consider "Phone-Banks" as an additional fund-raising mechanism.

**BUDGET REQUEST: \$3,000.00**

Respectfully submitted,  
Ray V. McIntyre, MD, Chairman  
John R. Alexander, MD  
Perry A. Lambird, MD  
Billy Dale Dotter, MD  
James D. Funnell, MD  
Larry L. Long, MD  
Victor L. Robards, MD



Jerry L. Puls, MD  
Sara R. DePersio, MD  
William G. Bernhardt, MD  
Ronald S. Barlow, MD  
Lofty L. Basta, MD  
Warren V. Filley, MD  
Robert M. Mahaffey, MD  
M. Joe Crosthwait, MD  
Floyd F. Miller, MD  
Ed L. Calhoon, MD  
George H. Kamp, MD  
Michael J. Haugh, MD  
William O. Coleman, MD  
Burdge F. Green, MD  
Gary F. Strebel, MD  
John A. McIntyre, MD  
Norman L. Dunitz, MD  
Jay A. Gregory, MD  
Claudia Kamas, OSMA Staff

## Report of the CONSTITUTION AND BYLAWS COMMITTEE

Subject: **Annual Report**  
Presented by: James B. Eskridge III,  
MD, Chairman  
Referred to: Reference Committee I

### Introduction

The Constitution and Bylaws Committee is charged with the responsibility of considering all proposed amendments to the Association's Constitution and Bylaws and to assure that they are in appropriate form and, if adopted, do not cause conflicts with other portions of the two documents. The Committee may originate proposed amendments, or consider amendments proposed by component societies or individual members of the Association and shall then present them with its recommendations to the House of Delegates for consideration.

During this past year, five separate proposed amendments to the OSMA Constitution and Bylaws have been presented to the Committee by the Association's House of Delegates, Board of Trustees, and individual members.

### House of Delegates Membership

At the 1989 Annual Meeting, the House of Delegates of the OSMA voted to amend the constitution and bylaws to provide full voting membership for the deans of the recognized medical schools in Oklahoma. The following

amendment will accomplish this:

The Constitution of the Oklahoma State Medical Association, Article V, House of Delegates, Section 1, is amended by striking the word "and" as it appears before "(5)", striking the "." as it appears after the words "special sections", and inserting the following language: "and (6) the Deans of the recog-



Mary Anne McCaffree, MD, chair of the OSMA Perinatal Task Force, is a pediatrician in Oklahoma City.

nized medical schools in Oklahoma, provided they are members of the Association."

Since this is a change in the constitution, it should be noted that a 30 day advance notice is required. However, since this was recommended by the 1989 House of Delegates, all societies were appropriately notified at that time.

The Bylaws of the OSMA, Chapter IV, House of Delegates, section 1.00 COMPOSITION, are amended as follows: By striking the word "and" as it appears just before the words "Delegates elected", by striking the "." as it appears following the word "below", and inserting the following language: "and the Deans of the recognized medical schools

in Oklahoma, provided they are members of the Association."

The Constitution and Bylaws Committee recommends the adoption of these amendments.

### Life Membership Qualifications

Whenever the Oklahoma State Medical Association awards a "life membership" to a physician, this does not automatically make the physician dues-exempt by the American Medical Association. There is a difference in the OSMA life membership requirements and the dues-exempt requirements of the AMA. While the AMA usually honors the OSMA Life Membership award, it does create a problem when the individual does not meet AMA requirements. Although the life membership provisions in the OSMA Bylaws apply only to OSMA members, any physician receiving such a designation expects that it will also be honored by the AMA. It is this "expectation" that can create a problem.

In order to bring the OSMA requirements for life membership into line with those of the AMA, it is necessary to remove one qualification and amend another. Specifically, the OSMA Bylaws state that life membership is available to any physician "engaged in the active practice of medicine for 50 years or more;" There is no such provision in the bylaws of the AMA. In addition, the AMA indicates that a physician is entitled to a dues-exempt membership after they have reached their 70th birthday, "provided that they are fully retired from the practice of medicine." This retirement provision does not appear in the OSMA Bylaws.

In order to make the OSMA Bylaws compatible with the AMA requirements, it will be necessary to amend Chapter I, Membership, Section 2.03 LIFE MEMBERS, as follows:

Delete "(b) engaged in the active practice of medicine for 50 years or more;" and then renumber (c) to (b) and add the underlined additional language so the entire section reads as follows:

2.03 LIFE MEMBERS. Any physician, a member in good standing of this Association who meets one or more of the following qualifications, may be elected to life mem-

bership: (a) Retired from active practice of medicine due to ill health or age; (b) attained the age of 70 years, provided that he or she is retired from the practice of medicine."

Your Committee recommends adoption of this amendment.

### Council Name Change

During the last annual meeting, the House of Delegates voted to change the name of the "Council on State Legislation" to the "Council on State Legislation and Regulation." This does not require an action of the House of Delegates and the Committee wishes to report that the change has been made and it will appear in the next issue of the OSMA Constitution and Bylaws.

### Election of AMA Delegates and Alternates

A special task force on OSMA elections has recommended to the OSMA Board of Trustees that the election process for Delegate and Alternate Delegate to the American Medical Association be changed. Specifically, they have recommended that there be at least two nominees for each office, that candidates should run at-large for either Delegate or Alternate Delegate and not be slotted. Your Committee disagrees with this latter requirement and offers the following amendment to the bylaws:

Section 5.00 of Chapter IV, ELECTION OF DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION, is amended by deleting the last two complete sentences of the section and adding three new subsections, 5.01, 5.02, and 5.03 as follows:

Section 5.00 ELECTION OF DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION. The House of Delegates shall elect Delegates and Alternate Delegates to the House of Delegates of the American Medical Association in accordance with the Constitution and Bylaws of that body. They shall be elected at the annual meeting for a term of two years, beginning January 1 of the year following election. Such Delegates and

Alternate Delegates shall attend all meetings of the American Medical Association.

5.01 NOMINATIONS. There should be at least two nominations for each Delegates and Alternate Delegate position. Any physician member of the OSMA wishing to run for a position of Delegate or Alternate Delegate must provide a letter of nomination designating which Delegate or Alternate Delegate position is being sought, signed by a member of the OSMA House of Delegates, to the Association office at least 60 days and not less than 30 days prior to the election. If, 25 days prior to the election, there are not at least two candidates for each position, then the Executive Committee of the Association shall solicit candidates who desire to run and hold office in order to obtain the required number of candidates. Approximately ½ of the Delegate and Alternate Delegate positions shall be selected each year.

5.02 ELECTIONS. Each member of the House of Delegates shall vote for one candidate for each of the Delegate and Alternate Delegate positions up for election. As soon as any candidate for any position obtains a majority of those voting, they shall be declared elected. Balloting will continue until all of the Delegate and Alternate Delegate positions are filled by individuals obtaining a majority.

5.03 VACANCY. If any position of Delegate is vacated, the individual holding the corresponding Alternate Delegate position shall succeed to the position of Delegate for the remainder of the unexpired term. If an Alternate Delegate position is vacated, the President of the Association shall appoint an eligible OSMA member to serve until the next annual meeting, at which time a successor shall be elected to fill the unexpired Alternate Delegate term.

Your Committee recommends adoption of this amendment.

### Dual County Membership

A number of OSMA members have

expressed an interest in the creation of some type of mechanism that would allow membership in more than one county medical society. At present the bylaws prohibit "dual membership" and require that a physician "will be carried on the official association roster for the component society of his predominant medical practice, and all dues and assessments for the Oklahoma State Medical Association shall be collected through this component society."

It is clear that the original prohibition of dual membership was to prevent confusion and to simplify collection of dues and assessments. However, some physicians have expressed a desire for dual membership because of social functions and scientific programs offered by societies. It is not possible for the OSMA to create such dual memberships inside the county societies, but the House of Delegates can amend the OSMA Bylaws to allow the county societies to offer such memberships.

The following language should allow the expansion of the "affiliate member" definition, at the county society level, to provide dual membership opportunity to interested physicians.

CHAPTER XI, Component Societies is amended by adding a new subsection as follows:

9.01 COMPONENT SOCIETY AFFILIATE MEMBERSHIP. A component medical society is authorized to create a category for affiliate members and define methods of selection. Such component society affiliate members shall be those that hold a full active membership in another component society of the Oklahoma State Medical Association.

Any component society allowing such affiliate memberships shall provide in its bylaws that such affiliate members shall be entitled to all of the privileges of membership, except voting and holding office. Such affiliate members shall not be reported to the Oklahoma State Medical Association for dues and assessment purposes, but shall be reported separately as "component society affiliate members." The component society may deter-



mine appropriate dues to this membership category.

Your Committee recommends adoption of this amendment.

### Recommendation

It is the recommendation of the Constitution and Bylaws Committee that all of the above cited amendments be adopted.

Respectfully submitted,  
J.B. Eskridge III, MD, Chairman  
Larry Long, MD, Vice-Chairman  
David Browning, Jr., MD  
Arnold Nelson, MD  
Orange Welborn, MD

## Report of the PHYSICIANS LIABILITY INSURANCE COMPANY

Subject: Annual Report

Presented by: C. Alton Brown, MD,  
Chairman and President

Referred to: Reference Committee I

### Letter From The President

Dear Member of the Oklahoma State Medical Association and PLICO Insured:

Congratulations! Your insurance company, PLICO, completed its 10th year of operation on December 31, 1989. It seems to be an appropriate time to take stock and review how nearly our company has met the objectives which we all had in mind when we formed PLICO.

Reviewing the minutes of the Trustees meeting where the decision was made to create a captive insurance company, these were the goals we set:

A. To guarantee a stable professional liability insurance market for Oklahoma physicians.

B. To write as broad a professional liability policy as was feasible providing as much coverage as we could.

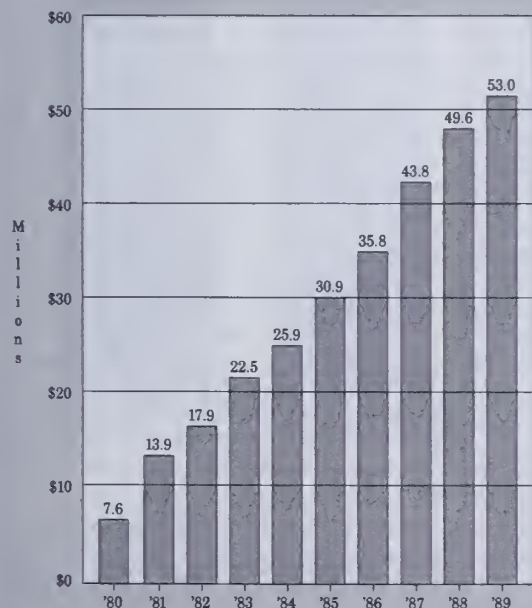
C. To make sure that Oklahoma physicians never paid more for their insurance than the actual cost of claims and defense plus the expense of running the company.

D. To defend all spurious claims and not to pay one penny for tribute.

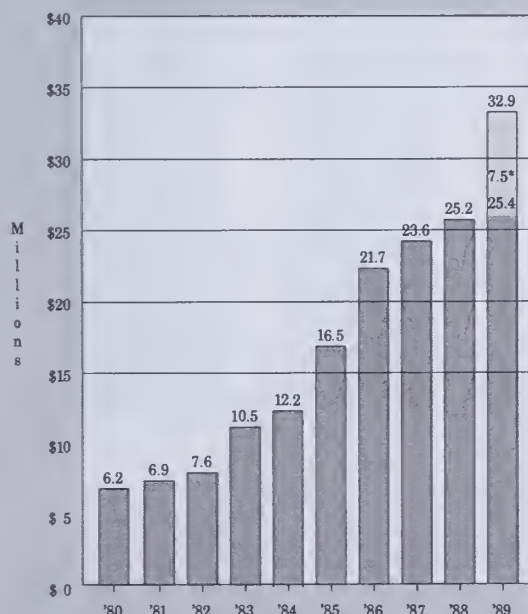
PLICO has provided a dependable insurance market and it is indeed fortunate that PLICO has been available to us because commercial carriers deserted their insured physicians on more than one occasion. Without PLICO, we would have been without an insurer some of the time, and the rest of the time we would have undoubtedly paid much higher premiums. The Osteopathic Physicians of Oklahoma have had three different insurers during this decade, and at one time better than one-half of their number had no insurance at all. They pay premiums 3-4 times as high as ours for claims-made insurance. They have had to rely on the commercial market's promises.

The second objective, the goal of retaining broad insurance coverage, has also been achieved. None of us could have anticipated that occurrence insurance would disappear, but indeed it did, to be replaced by the claims-made insurance policy. Only PLICO continues to provide occurrence insurance.

ASSET GROWTH  
ASSETS

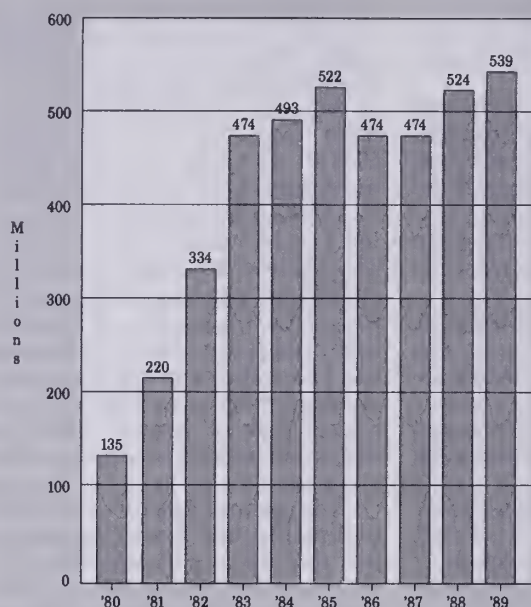


PREMIUM GROWTH  
PROFESSIONAL LIABILITY PREMIUMS



\*Adverse court rulings and legislation led the Company to assess a 30% policy fee in 1989 to raise reserves to a more conservative level.

# CLAIMS INFORMATION NUMBER OF CLAIMS REPORTED



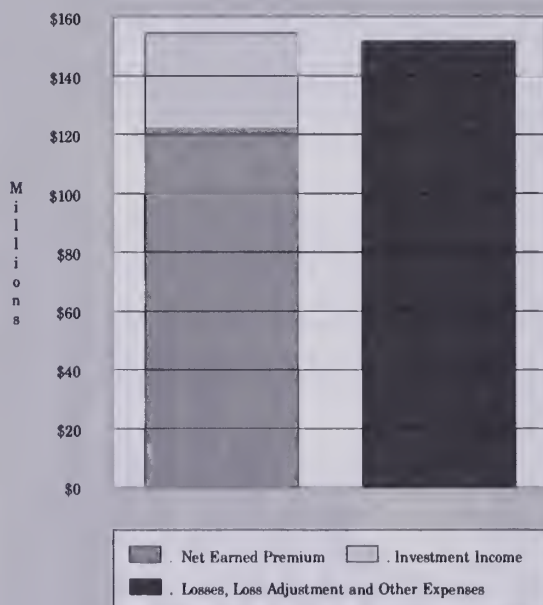
Furthermore, exclusions have been added to other malpractice insurance policies that deny coverage for anti-trust suits, suits where it is alleged the physician was impaired by drugs or alcohol, suits alleging sexual harassment no matter how spurious, and suits that relate to activities of a physician on behalf of his association or on a peer review board for a hospital. PLICO has preserved all of these coverages for our members. In the second instance, PLICO has proved as valuable as it did in the first.

With regard to the third objective, occurrence medical malpractice insurance with PLICO has remained less expensive than any mature claims-made policy offered by any commercial insurer.

PLICO still offers more than a dollar's worth of benefits for a dollar of premium. By utilizing the income from the reserves that commercial carriers realize as profits and keeping the management cost down, PLICO has been able to give \$1.09 worth of value for every dollar's worth of premium to Oklahoma physicians. By the most conservative estimates, comparing PLICO's premiums over the last decade to the premiums of other insurers available in Oklahoma, Oklahoma physicians have saved in excess of \$30,000,000 in professional liability insurance premiums.

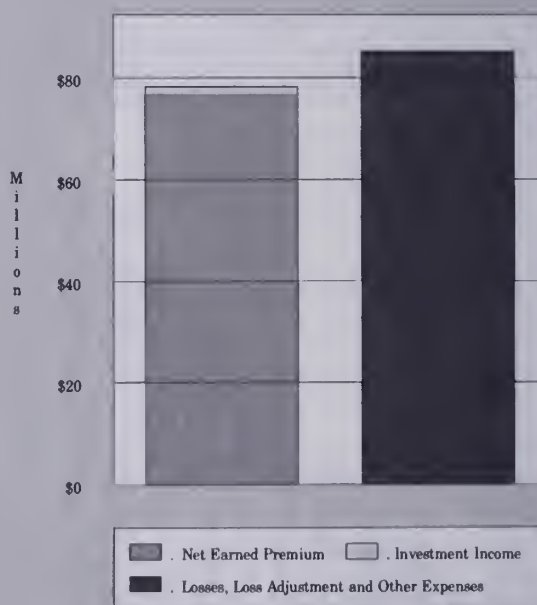
As regards to your fourth charge to us, we have striven mightily to not pay one penny for tribute.

## Physicians Liability Insurance Company Professional Liability (Inception to 12-31-89)



The Company's investment income (lightest shaded area on the graph) has been more than the management cost of the program, and therefore contributes to the payment of claims and defense costs. In contrast, commercial carriers use all of investment income, plus a portion of premiums (often 40%), to cover expenses and profits. The premium savings produced exceed \$30,000,000 for OSMA members, not to mention the savings produced by physician review of each claim filed and the aggressive, "not one penny for tribute" policy of your board.

## Physicians Liability Insurance Company Accident and Health (Inception to 12-31-89)



PLICO Accident and Health Insurance has saved Oklahoma physicians at least \$14,000,000 in premiums since its birth in 1982, but in order to make these benefits possible in the future, PLICO Health care, like other health insurance plans, must deal with the rising cost of medical care and the increasing utilization of medical services. With PLICO you have a guarantee that as long as the Company is in business and you are loyal to the Company, your insurability will never come into question.



Our decision to form our own professional liability insurance company was clearly a wise one and one that has benefited us all — giving us peace of mind and substantial savings.

The one thing that our insurance company cannot do for us is to solve the root problem that has caused professional liability premiums to continue to rise, the basic torts problem. In spite of this problem our 1990 insurance cost remains unchanged. This includes continuing the policy fee that was first assessed during 1989. The association's strength and the loyalty of its members are the reasons for PLICO's success in its first decade. Our success in the next decade will depend on the continued support of every member of our association.

### PLICO Health Insurance

In 1982, we added accident and health insurance. You instructed us to add this division to PLICO because commercial carriers refused to write group insurance for the O.S.M.A. Individually, many physicians could not buy insurance. Others were being cancelled outright. Premiums were being doubled and tripled. When we formed our accident and health insurance line, we endeavored to address these issues. We guaranteed all our doctors continued coverage, even after they had a claim. We had watched the commercial insurance market cancel or increase premiums to a point that was tantamount to cancellation after losses occurred. We reasserted the basic principle of insurance; that is that all contribute to share the fortuitous loss suffered by a few.

We designed a true group insurance plan available to every member of the medical association who wished to take advantage of it during an initial open enrollment period and thereafter to all new members who enjoy an open enrollment period subsequent to their joining the association. We guaranteed every member of the association who joined PLICO Health that PLICO Health would not cancel them or their family as long as the program existed and as long as they continuously paid their premium. Nowadays, other insurance companies will not make that promise. They do not sell non-cancellable policies, nor do they promise an insured that his premium will not be affected by his

loss experience.

Just as PLICO Malpractice has become unique because of its occurrence feature, PLICO Health has become unique because of the guaranteed continued insurability feature. Like PLICO Professional Liability, PLICO Health offers an extraordinary value. Most commercial insurers sell insurance which consists of 37 cents of overhead and 63 cents of insurance. This is true of HMO's and PPO's as well. With PLICO Health, our premiums are driven by our losses and costs are a fraction of commercial carriers. In other words you get more insurance for less premium. But, those who cancel PLICO Health for any reason cannot return to the group without evidence of insurability.

The future of PLICO Health depends as surely on the unity and loyalty of the association, as does the future of PLICO Professional Liability.

### Pitfalls for the '90's

Physicians insured by PLICO should beware that in the next few months, if you have not already, you may see many commercial insurance solicitations. These insurance solicitations will be attempting to erode PLICO's insured base. They fall into four (4) categories:

- (1) **Risk-Retention Groups** — Any corporation or other limited liability association formed under the laws of any state, Bermuda, or the Cayman Islands, to assume and spread all, or any portion of, the liability exposure of its group members. These groups are formed under the Federal Risk Retention Act of 1986. They do not need to be licensed in each state. For this reason the state insurance department has no control over their activities as regards finances, claims payments, etc. Also, they do not fall under the protection of the Oklahoma State Guaranteed Fund.
- (2) **Risk Purchasing Group** — These are formed under the same act as risk retention groups. Some specialty societies have formed such groups. These are not captive insurance companies and the provider of the insurance is a commercial insurer. Again, the state insurance department has no control over these purchasing groups.
- (3) **Foreign Insurance Companies**

PHYSICIANS LIABILITY INSURANCE COMPANY BALANCE SHEET Year Ended December 31, 1989	
<b>Assets</b>	
Cash and Invested Assets	\$51,153,826
Premium and Agent Balances in Course of Collection	162,045
Interest Receivable	1,193,696
Note Receivable — OFPR	37,746
Reinsurance Recoverable	458,624
<b>TOTAL ASSETS</b>	<b>\$53,005,937</b>
<b>Liabilities</b>	
Unearned Premium	\$ 1,580,809
Losses and Loss Adjustment Expenses	46,245,434
Federal Income Tax	579,015
Miscellaneous Accounts Payable	447,339
<b>TOTAL LIABILITIES</b>	<b>\$48,852,597</b>
<b>Capital</b>	
Common Stock	\$ 150,000
Additional Paid-In Capital	5,753,372
Retained Loss	(1,750,032)
<b>TOTAL CAPITAL</b>	<b>\$ 4,153,340</b>
<b>TOTAL LIABILITIES AND CAPITAL</b>	<b>\$53,005,937</b>
<b>STATEMENT OF INCOME Year Ended December 31, 1989</b>	
<b>Premiums</b>	
Direct Premium Written	\$47,893,713
<b>Net Premium Written</b>	<b>\$41,564,460</b>
<b>Premiums Earned</b>	<b>\$41,564,460</b>
<b>Expenses</b>	
Losses	\$29,563,669
Loss Adjustment Expenses	9,769,435
Other Underwriting Expenses	6,630,807
<b>Total Underwriting Expenses</b>	<b>\$45,963,911</b>
Underwriting Loss	\$(4,399,451)
Investment Income	5,085,089
Federal Taxes Incurred	(613,357)
<b>Net Profit</b>	<b>\$ 72,281</b>
Capital December 31, 1988	4,081,059
Surplus Contributions - 1989	72,281
<b>Capital December 31, 1989</b>	<b>\$ 4,153,340</b>

— Many of these insurance companies are not licensed anywhere. They are domiciled in countries that do not require insurance companies to carry reserves or have capital and surplus and countries with inadequate insurance laws. They are simply a piece of paper. The Oklahoma Insurance Department has ordered some of these companies to cease and desist. At least one company has reappeared under a different name and offer their product despite the efforts of the insurance commissioner to curtail their activities.

- (4) **Commercial Carriers** — Commercial Carriers domiciled in the U.S., who have come into the mar-



ket in Oklahoma and then pull out leaving their insureds without coverage.

**All of these companies offer the Claims-Made Insurance Policy.** As you all know, the occurrence policy, like the one offered by PLICO, is considerably superior to the claims-made policy. Let me explain the differences to you. First of all, with a claims-made policy, the premium has built-in increases for 5 years to the "mature year." This is the case even with no general rate increases.

Second, if you decide to stop participating and terminate your coverage, you will have no coverage for claims that have not been reported unless you purchase extended reporting coverage or "tail coverage." This coverage is extremely high. We have reports of premiums of 200% to 300% of the premium at the time the policy is cancelled.

With an occurrence policy you pay one premium and should you cease to practice or move out of state, you are covered forever for your medical activities while you had insurance. PLICO gives you complete coverage and you know exactly what it is going to cost in advance. Nobody else offers that kind of insurance in Oklahoma to physicians.

### Hold Harmless Clauses

Hold Harmless Clauses often appear in service contracts between physicians and health maintenance organizations, preferred provider organizations, or health insurance company provider plans. Before signing a contract with such a clause, all physicians are urged to clear the contract with PLICO.

In the eight years PLICO Health has been in existence, we have watched the HMO's and PPO's price their product at less than cost. We have seen them fail or increase their premiums in the last year by as much as 50% to 100%. We have struggled with the forces that have affected premiums for all health insurance programs; greater longevity, the wealth of new technology that has spanned new medical treatment and expenses, and what some describe as a declining level of health in much of our population. All of these factors have contributed to medical cost inflation. Other contributing factors are the desperate eco-

nomy in Oklahoma and the fact that many of our employees became the sole source of support for their families and the only source of health insurance.

This year most commercial insurers will increase their premiums by 20% to 60%, and the HMO's and PPO's even more. PLICO Health will have to continue increasing its premium. Help us to let all the members of the O.S.M.A. know that nowhere else can they buy guaranteed continued insurability and that without sticking together and supporting PLICO Health, the commercial insurance market would take advantage of us all.

PLICO Health has also fulfilled the objectives we set for it. Like PLICO Professional Liability, it must pay its own way. We are making every effort to let the members of our association know how unique this plan is. Help us to get this message to them: PLICO Health has provided: (A) a stable source of health insurance, (B) insurance at cost, and (C) guaranteed continued insurability to our loyal members.

It has been a good decade for PLICO. Your company is financially strong, but it is writing the two toughest lines of insurance. All of us must work together as a team and never lose sight of our original objectives in the decade to come.

Sincerely,  
C. Alton Brown, M.D.

## Report of the OKLAHOMA STATE MEDICAL ASSOCIATION AUXILIARY

Subject: **Annual Report**  
Presented by: Mrs. Maureen Bynum,  
President  
Referred to: Reference Committee I

"Physician Partnerships — Always a Team Effort" has been the Auxiliary theme for 1989-90. Auxiliary began its own "Run of 89" at the Annual Convention held May 4-6, 1989 in Tulsa, Oklahoma.

We hope we have rounded up some strays, branded some new members and embarked on the next 100 years

with a "pioneer spirit." We are willing to experiment with new ideas while incorporating our traditional ways to build an even stronger Auxiliary.

As a new idea, an Auxiliary Board Retreat was held July 13-14, 1989, at the Marriott Residence Inn in Norman. The retreat was planned to give membership information and leadership training with the opportunity to become better acquainted with auxiliary leaders from across the state.

AMA-ERF has had a very successful year. At this date, over \$28,000 has been sent to AMA-ERF. Christmas Sharing Cards, memorial donations, raffles, an auction, luncheons, Christmas card sales, and other small fundraisers have continued to fund future medical research and education. A silent auction will be held this year at our annual meeting.

As another new idea, instead of Medicine Day at the Capitol, Sherry Strebel contacted AMPAC about having their Constituent Skills/Political Education Workshop presented in Oklahoma City on March 7, 1990, and in Tulsa on March 8, 1990. The workshop is provided solely by AMPAC at the expense of the AMA, with Oklahoma having to provide only a continental breakfast and lunch for the participants, as well as seeing that the selected place is set up for a workshop. Michael Dunn, a nationally known political consultant out of Washington, DC, presented the workshop. It was well attended and a very positive experience for those present. Oklahoma is the only state to ever have back-to-back workshops.

OMPAC membership is a direct way to be involved in the legislative process. Sixty-one Auxiliary members belong to OMPAC/AMPAC. Your Auxiliary appreciates the opportunity to serve as voting members on three OSMA groups: OMPAC/AMPAC, the Council on State Legislation and Regulation, and the Council on Governmental Activities.

Health projects, as conducted across the state by county auxiliaries, included anti-smoking and drunk-driving programs, child abuse prevention efforts and first-aid education, health and science fairs, adolescent pregnancy, drug abuse, sexuality and suicide prevention. Over \$20,000.00 was expended by counties in support of health projects.



The Health Education Foundation is now two years old. Its committee granted a \$500 Ann Garrison Scholarship to an outstanding nursing student in Oklahoma and a \$500 grant to a county for a community health project. It is time that the committee consider some type of fundraising for the Foundation with the Auxiliary's help so we may offer more than one scholarship and grant.

Membership in the Auxiliary is vital to this organization if we are to continue our outstanding health projects, education on medical issues for ourselves and the public, and support of one another. The County Auxiliary visits by the president and the president-elect have become traditional because of their importance. Meeting and visiting with these members from the counties enables everyone to share concerns and goals. These visits make this office a delightful experience.

The AMA Auxiliary Leadership Confluence that is held twice a year provides education and information for potential Auxiliary leaders. Strong leadership is a must in creating member participation in the Auxiliary. These national leadership sessions are outstanding. The auxiliaries who are invited to attend always benefit by gaining leadership skills and ideas.

The Oklahoma State Medical Association Auxiliary is extremely proud to have Sherry Strebel as our first nominated President-Elect to the American Medical Association Auxiliary. Sherry has been a devoted member of county, state and national auxiliary and has served in many capacities. She will represent all of us very well.

The support and encouragement of Dr. John Alexander, your president, the Board of Trustees, and the OSMA staff are very much appreciated by your Auxiliary. We are your Auxiliary, and we want to thank you for the opportunity of working together to enhance the image of medicine. Hopefully, it will be "ALWAYS A TEAM EFFORT."

Respectfully submitted,  
Maureen Bynum, President  
OSMA Auxiliary

## **Report of the OKLAHOMANS AGAINST LAWSUIT ABUSE COALITION**

**Subject: Annual Report**

**Presented by: Lyle Kelsey, OALA**

**Executive Director**

**Referred to: Reference Committee I**

### **Introduction**

Oklahomans Against Lawsuit Abuse was organized as an effort to bring several groups such as business and professionals together to effect some changes in the civil liability court system. The primary emphasis of this organization has been to try and make changes in the tort statutes for the State of Oklahoma. The legislative leadership has traditionally been opposed to making major changes to the tort laws. Since 1986, several changes have been made that have helped bring more balance to the courtroom. As a review, some of these items are a cap on punitive damages that cannot exceed the amount of actual damages awarded, a seven-year statute of limitation on minors and incompetents as well as a fine of up to \$10,000 plus court costs to any plaintiff counsel who is judged to have brought a frivolous lawsuit to the courtroom. Several other issues were passed that dealt with immunity to professional groups that conduct peer review activities and eliminating the ad-damum clause which limits the reported prayer for damages to more than \$10,000.

All of these measures have helped, but the legislature has still ignored the larger issues such as joint and several, cap on noneconomic, collateral sources and a reasonable statute of limitations. In fact, in 1988, the Oklahoma Supreme Court struck down the third year statute of limitations for medical professionals as special class legislation. The Coalition effort continues to bring about meaningful tort reform in the Oklahoma Legislature.

### **Current Activities**

During the 1989/90 legislative session, several bills were introduced to try to address some of the major issues of tort reform. Senate Bill 423 was introduced to remove the rule of joint and several. We have maintained that

this rule is unfairly applied in those cases that involve multiple defendants by allowing a defendant who may be a small percentage involved in the negligent act to be held responsible for the full liability. Senate Bill 423 would also require the judge in certain circumstances to set up awards over \$100,000 in periodic payments. Senate Bill 409 would require the plaintiff attorney to complete a certificate of merit prior to filing a case. The certificate would have another "like" professional certify that the case has merit.

Two house bills, HB 1562 and HB 1577, were introduced to try to give some relief to the area of product liability. HB 1562 would have set up contributory negligence guidelines whereby the plaintiff that is responsible for a portion of the negligence resulting in injury could not recover damages for that portion. HB 1577 states that a product involved in a lawsuit would be held liable only for compliance with federal and state safety regulations applicable at the time the product was manufactured.

True to form of past legislatures, none of these bills were allowed a fair hearing in their respective committees. The committee chairmen of the various house and senate committees are put there by their respective leadership. Therefore, when the word goes out that no tort reform issues will be dealt with, the chairman simply does not schedule the bill for a hearing. Most, if not all of the tort reform legislation ends up in the house and senate judiciary committees. Both of these committees are heavily dominated by lawyers which is not the best forum for a fair hearing.

Most of this legislative session was spent in a defensive mode against legislation introduced by the trial lawyers to negatively impact the tort laws and specifically, professional liability. HB 1122 would have allowed for disclosure of all limits of liability insurance to the plaintiff lawyer which would have had disastrous effects on the prayer for damages and the joint and several rule. An aggressive and well orchestrated campaign was launched by OALA to fight this legislation. The campaign was successful, with most of the credit going to Oklahoma physicians in that large numbers of legislators were contacted in opposition to HB 1122. The author of

the bill realizing that he did not have an acceptable compromise between the plaintiff lawyers and the various professional groups, decided to put the bill in conference committee and let it die. All physicians who participated in this issue are commended for their effort in defeating this negative legislation.

Senate Bill 215 would have added the words "bad faith" to actions allowing for exemplary and punitive damages not involved in a contractual context. Presently, a defendant must be guilty of conduct evincing a wanton or reckless disregard of the rights of another, oppression, fraud or malice, all of which can be actual or presumed. The problem with adding "bad faith" to this list is that "bad faith" has no specific or concrete definition. Senate Bill 215 appeared to be allowing legislative intent to incorporate a new, abstract and substantive term in the statutes to allow for exemplary and punitive damages. We determined the legislation was too broad and liberal to allow passage. Again, the Coalition through the efforts of its membership, was able to convince the house author of the negative impact of this legislation and the bill was killed in committee.

Senate Bill 580 would have changed the pre-trial judgment interest rate from the average T-Bill for the preceding calendar year to the coupon yield equivalent of the average accepted auction price for 52-week T-Bills for the preceding calendar year. The interest would be computed daily to the date of payment excluding the day that interest begins to accrue and including the day the payment is received. This legislation was presented as some "minor" changes to reflect what is actually done in current practice. After considerable investigation, it was determined that this is not current practice and that the language would actually increase the interest rate by as much as ½ percent. The sentence that appeared to state a beginning and ending point for the in-

terest calculation actually allowed for the interest to be compounded on a daily basis. The higher rate of the coupon yield equivalent T-Bill plus the daily compounding of interest would allow the plaintiff and plaintiff attorney to receive a *substantial* increase. The pre-trial interest rate is already too high in our opinion and this legislation would have allowed for a significant increase. A high pre-trial interest has the effect of encouraging delays and extensions of trial time.

OKLAHOMANS AGAINST LAWSUIT ABUSE			
FINANCIAL STATEMENT NOVEMBER 1985-MARCH 1990			
<b>Income:</b>			
Initial Assessment (1985-1986)	\$491,994		
Interest earned (7/87-3/90)	78,502		
OSMA Tort Reform Assessment balance	\$570,496		
Contributions from other sources (1986-1990)	\$107,233		
<b>TOTAL INCOME</b>		\$677,729	
<b>Expenses:</b>			
Administrative	\$ 63,009		
Fundraising	94,515		
Advertising	109,085		
Office	67,877		
Legal	17,977		
<b>TOTAL EXPENSES</b>		\$352,463	
<b>BALANCE</b>		\$325,266	

The coalition went to work in alerting the authors of the bill and the committee members of the negative impact of Senate Bill 580 and was able to secure the support of the house author to kill the bill. The passage of this legislation would have had a serious negative-dollar impact on all liability insurance companies, including PLICO.

The Coalition was hopeful that the governor's State of the State Goals to include tort reform would have been more productive. Governor Bellmon expressed a desire to try to help the medical malpractice insurance problem by addressing the area of obstetrical care for expectant mothers. He also

indicated a desire to bring some relief to the product liability issue by looking at a reasonable statute of limitation. Unfortunately, the governor's programs were not introduced.

## Conclusion

The Coalition will be involved in several areas during the remainder of this year. First, since 1990 is an election year, the Coalition will be looking at the various political races in which to make changes in favor of tort reform. We will be looking at those candidates that have supported the tort reform efforts and helping their campaigns for re-election. Those candidates that are opponents to tort reform will be targeted to replace.

Secondly, the Coalition will be reviewing its legislative agenda for the 1991 legislative session. Legislation will be introduced to try and further reform the tort statutes. One new area that will be explored in more detail is that of structured settlements. As of 1990, 26 states have passed some form of periodic payment and/or structured settlement legislation. The concept of structured settlements has some very positive financial benefits to liability carriers such as PLICO.

OALA will continue to research alternatives to the present court system. The American Medical Association has developed a fault-based administrative system that has been introduced in several states as a pilot project. We will monitor these states as more information becomes available. The Physician Insurers Association of America (PIAA) has also established an alternative proposal which will be studied. Both of these proposals encourage the use of an administrative system to provide economic incentives and accelerated payments to the injured party.

A current accounting of the OSMA tort reform assessment is attached.

Respectfully submitted,  
Lyle R. Kelsey,  
Executive Director



# Reference Committee II REPORTS TO THE HOUSE OF DELEGATES

## Report of REFERENCE COMMITTEE II

Presented by: William O. Coleman,  
MD, Chairman

Mr. Speaker and Members of the House of Delegates, Reference Committee II gave careful consideration to the several items referred to it and submits the following report:

### (1) Report of the President

#### *Recommendation:*

Mr. Speaker, your Reference Committee recommends that the Report of the President be filed for information.

Your Reference Committee expresses its appreciation to John R. Alexander, MD, for his dedication to his profession and for his direction of the OSMA this year.

Dr. Alexander succeeded in his quest to restore unity, not only among those in private practice, but also with our colleagues at the University of Oklahoma Health Sciences Center.

We are truly grateful for his contributions to Oklahoma medicine.

### (2) Report of the President-Elect

#### *Recommendation:*

Mr. Speaker, your Reference Committee recommends that the Report of the President-Elect be filed for information.

The Members of the Reference Committee wish to express their best wishes and also confidence in Dr. Perry

A. Lambird as he leads Oklahoma medicine in what is sure to be a very pivotal year for our profession.

### (3) Report of the Council on Professional and Public Relations

#### *Recommendation:*

Mr. Speaker, your Reference Committee recommends that the Report of the Council on Professional and Public Relations be filed for information.

Your Reference Committee commends Dr. Warren V. Filley and the other members of the Council for their work during the course of the year.

Mr. Speaker, discussion in the Reference Committee concerning the OSMA's VIP program does require action by the OSMA House of Delegates.

Senior citizen advocates in meetings with the OSMA have asked that there be uniform eligibility criteria for the VIP program. Senior citizens in Oklahoma and Tulsa Counties who earn less than \$15,000 a year are eligible for VIP cards. In rural Oklahoma, eligibility is \$2,000 above the poverty levels, approximately \$8,500 a year.

Secondly, senior citizen advocates ask that a list of VIP doctors be made available to senior agencies for their use in referrals.

Third, the seniors asked the OSMA to encourage more physicians to become Medicare participating doctors.

#### *Recommendation No. 1:*

Mr. Speaker, because of inequitable reimbursement between urban and rural physicians under Medicare, your Reference Committee recom-

mends there be no change in the current dual standards of eligibility.

#### *Recommendation No. 2:*

Mr. Speaker, your Reference Committee recommends that a list of VIP physicians be made available to selected senior agencies to aid them in referrals.

#### *Recommendation No. 3:*

Mr. Speaker, your Reference Committee recommends that physicians continue to make their participation decisions in the best interest of their practice and their patients.

Mr. Speaker, your Reference Committee recommends that this portion of the Report be adopted.

### (4) Report of the Council on Public and Mental Health

#### *Recommendation:*

Mr. Speaker, your Reference Committee recommends that the Report of the Council on Public and Mental Health be filed for information.

The Reference Committee wishes to commend Robert M. Mahaffey, MD, chairman of the OSMA Council on Public and Mental Health; Mary Anne McCaffree, MD, chairman of the OSMA Perinatal Task Force; Ronald O. Gilcher, MD, chairman of the OSMA AD Hoc Committee on AIDS; and Chester L. Bynum, MD, chairman of the Committee on Physicians and the Environment for their excellent work during the course of the year.

### (5) Report of the Ad Hoc Committee on AIDS

#### *Recommendation:*

Mr. Speaker, your Reference Committee recommends that the Report of the Ad Hoc Committee on AIDS be filed for information.

### (6) Report of the Council on Medical Education

#### *Recommendation:*

Mr. Speaker, your Reference Committee recommends that the Report of the Council on Medical Education be filed for information.

Mr. Speaker, your Reference Committee wishes to commend Drs. Lofty L. Basta and Irwin R. Brown, Jr., for their work with the Council during the year.

### (7) Report of the Council on Medical Services

*Recommendation:*

Mr. Speaker, your Reference Committee recommends that the Report of the Council on Medical Services be filed for information.

Mr. Speaker, your Reference Committee wishes to commend Ronald S. Barlow, MD, and his Council for their work in adjudicating both quality of care and fee disputes. Indeed, this is a very delicate, yet important, area and Dr. Barlow should be congratulated for a job well done.

**(8) Report of the Young Physicians Section***Recommendation:*

Mr. Speaker, your Reference Committee recommends that the Report of the Young Physicians Section be filed for information.

Mr. Speaker, there was much discussion in the Reference Committee as to the Section's activities. Apparently, many young physicians are unaware of the Section and questioned the \$3,000 line item budget.

Mr. Speaker, the budget is to fund a delegate and an alternate delegate to national AMA Young Physicians Section meetings.

Mr. Speaker, your Reference Committee recommends the OSMA rededicate its efforts to encourage young physicians to participate in this very important Section.

**(9) Report of the Medical Students Section***Recommendation:*

Mr. Speaker, your Reference Committee recommends that the Report of the Medical Students Section be filed for information.

Mr. Speaker, the Reference Committee heard reports from medical students and all members of the Committee expressed their support for this very vital program. All members of the Committee actually said they wished a program like this was in place when they were students. These students are the future of our county societies, the OSMA, and the AMA, and continued support of the medical student section is vital for the growth of organized medicine.

**(10) Report of the Hospital Medical Staffs Section***Recommendation:*

Mr. Speaker, your Reference Com-

mittee recommends that the Report of the Hospital Medical Staffs Section be filed for information.

The Reference Committee recommends that the HMSS meet again next year in conjunction with the OSMA Annual Meeting.

**(11) Report of the Oklahoma Foundation for Peer Review***Recommendation:*

Mr. Speaker, your Reference Committee noticed there was no written report submitted to the OSMA by the OFPR in 1989. The Reference Committee recommends that the OSMA ask the OFPR to provide a report on its activities for 1989 and that annual reports be filed with the House of Delegates.

**(12) Report of the OSMA Child Abuse Task Force***Recommendation:*

Mr. Speaker, your Reference Committee recommends that the Report of the OSMA Child Abuse Task Force be filed for information.

Mr. Speaker, your Reference Committee wishes to commend Dr. Ray V. McIntyre and Claudia Kamas for their work in this area.

**(13) Report of the JOURNAL of the Oklahoma State Medical Association***Recommendation:*

Mr. Speaker, your Reference Committee recommends that the Report of the JOURNAL of the Oklahoma State Medical Association be filed for information.

Mr. Speaker, your Reference Committee wishes to commend Dr. Ray V. McIntyre and Susan Records for their fine work which again resulted in the JOURNAL receiving Honorable Mention in the Sandoz Pharmaceuticals medical journalism competition.

**(14) Resolution 1 — Perinatal Care***Recommendation:*

Mr. Speaker, your Reference Committee recommends that Resolution 1 be adopted as amended to read as follows:

On Line 13, delete "provision of" and insert "access to"; and on Line 17 between the words "strategies" and "designed" insert "along with existing state and local services."

Mr. Speaker, the Reference Com-

mittee felt that reference to effective provision of care may be construed by some that Oklahoma physicians provide less than adequate care. Nothing could be farther from the truth. The Reference Committee also felt it is important to work with local agencies in solving this very difficult problem.

**(15) Resolution 2 — Early Medical School Training***Recommendation:*

Mr. Speaker, since the OSMA/OUHSC Liaison Committee is already working on this issue, your Reference Committee recommends adoption of the following Substitute Resolution in lieu of Resolution 2:

"Resolved, That the OSMA/OUHSC Liaison Committee continue to address the problem of encouraging physicians to enter primary care practices in rural areas."

**(16) Resolution 4 — OSMA Drug Prevention and Adolescent Health Task Force***Recommendation:*

Mr. Speaker, your Reference Committee recommends that the Resolution 4 be adopted as amended to read as follows:

On Line 29, after the word "services," delete the remainder of the Resolve and insert "and the OSMA will provide materials that can be loaned to county medical societies to prepare programs in their local communities."

Mr. Speaker, your Reference Committee felt the part of Resolution 4 calling for funding such programs in school districts would be well beyond the means of OSMA.

**(17) Resolution 9 — Adequate Medical Care***Recommendation:*

Mr. Speaker, your Reference Committee recommends that Resolution 9 be adopted as amended to read as follows:

Mr. Speaker, your Reference Committee recommends that the final Resolve be deleted because the VIP program is already addressed in the Report of the Council on Professional and Public Relations.

**(18) Resolution 10 — Licensing of HMOs, PPOs, Etc.***Recommendation:*



Mr. Speaker, your Reference Committee recommends that Resolution 10 be adopted as amended to read as follows:

On Line 13, delete "other similar organizations be licensed within the State of Oklahoma and," and insert "similar health care delivery systems" before the words "be responsible."

#### **(19) Resolution 14 — Health Access America**

##### *Recommendation:*

Mr. Speaker, your Reference Committee recommends that the Resolution 14 be adopted as amended to read as follows:

On Line 21, after the word "for" and before the word "implementation," insert "assessment and possible."

Mr. Speaker, your Reference Committee, being grammarians, as well as physicians, note that on Line 7 "cite" should begin with a "c" and on Line 17 "American" should be "America."

Mr. Speaker, your Reference Committee feels all physicians perhaps do not agree with all aspects of the Health Access America Plan; nevertheless, the AMA's Health Access America Plan is an important step in addressing the very real problem of the indigent, the elderly, and the working uninsured. It deserves our support.

#### **(20) Resolution 16 - Community Pharmacist**

##### *Recommendation:*

Mr. Speaker, your Reference Committee recommends that Resolution 16 be adopted.

Mr. Speaker, your Reference Committee feels that obviously pharmacists are strong allies in providing health care to Oklahoma. We must support our local pharmacists or we will not have their assistance in the future. Your Reference Committee commends the fine work done by family pharmacists in Oklahoma.

#### **(21) Late Resolution 19 - Immunizations and Vaccinations**

##### *Recommendation:*

Mr. Speaker, your Reference Committee recommends that Late Resolution 19 be adopted.

Oklahoma physicians should be commended for participation in the statewide Medicare influenza vaccina-

tion project and be encouraged to continue to participate in the project.

#### **(22) Late Resolution 20 - Medical Careers**

##### *Recommendation:*

Mr. Speaker, your Reference Committee recommends that Late Resolution 20 be amended as follows: Delete the second Resolve. It was



Maureen Bynum, Norman, thanks OSMA officers and staff for their support as she ends her year as OSMA Auxiliary president.

the opinion of your Reference Committee that the issues addressed in the second Resolve are already in the purview of the OSMA/OUHSC Liaison Committee.

#### **(23) Late Resolution 22 - "Growing Healthy" Curriculum**

##### *Recommendation:*

Mr. Speaker, in lieu of Late Resolution 22, your Reference Committee recommends the following Substitute Resolution be adopted:

*"Resolved, That the OSMA endorse programs of curricula aimed at the prevention of health care problems through education."*

Mr. Speaker, your Reference Committee feels that the Growing Healthy Program is indeed an excellent one; however, it is one that not all school districts can afford and the Committee

realizes that other effective programs may be available to school districts.

#### **(24) Late Resolution 24 - National Nurses' Day**

##### *Recommendation:*

Mr. Speaker, your Reference Committee recommends that Late Resolution 24 be adopted.

Mr. Speaker, as physicians, we, more than anyone, realize the role of nurses in helping our patients get well; therefore, we should be leaders in helping nurses get the respect, status, and remuneration that they so richly deserve.

#### **(25) Late Resolution 25 - Maternal Substance Abuse During Pregnancy**

##### *Recommendation:*

Mr. Speaker, your Reference Committee recommends that Late Resolution 25 be adopted.

Mr. Speaker, clearly the problem of drug-addicted mothers producing drug-addicted babies is a very serious one. However, the prevalence of the problem is as yet unknown. Therefore, your Reference Committee strongly recommends that Late Resolution 25 be adopted.

#### **(26) Late Resolution 27 - CME Courses**

##### *Recommendation:*

Mr. Speaker, your Reference Committee recommends that Late Resolution 27 be adopted.

Mr. Speaker, your Reference Committee notes that Dr. Warren Filley, in the Council on Professional and Public Relations, and Dr. Lofty Basta, through the Council on Medical Education, and the OSMA/OUHSC Liaison Committee are already working to address these problems. Your Reference Committee recommends that these endeavors continue and that this resolution be adopted.

#### **(27) Late Resolution 29 - Environmental Health Programs**

Mr. Speaker, your Reference Committee recommends that Late Resolution 29 be adopted as amended as follows:

Delete the third Resolve.

Mr. Speaker, your Reference Committee feels that while the intent of the Resolve is admirable, it could lead to further unwanted regulations. It is

also the Reference Committee's opinion that services are already in place to monitor problems in the areas described.

Mr. Speaker, your Reference Committee encourages all Oklahoma physicians to become leaders in protecting our environment and educating others to protect it as well.

#### **(28) Late Resolution 30 - Funding For OUHSC Library Endowment**

##### *Recommendation:*

Mr. Speaker, your Reference Committee recommends adoption of Late Resolution 30.

Mr. Speaker, your Reference Committee realizes the debt all who graduated from the OU College of Medicine owed to our school library. A library is any university's backbone.

Mr. Speaker, your Reference Committee recommends adoption of the Report of Reference Committee II, as amended, as a whole.

Mr. Speaker, this concludes the Report of Reference Committee II. Your Reference Committee wishes to thank all who participated in the hearing and contributed to the preparation of this report.

Respectfully submitted,  
William O. Coleman, MD, Chairman,  
Oklahoma City  
Rosemary Bellino, MD, Lawton  
David J. Confer, MD, Tulsa  
Robert M. Gold, MD, Tulsa  
Nick Knutson, MD, Oklahoma City  
Frederick A. Kuhn, MD,  
Oklahoma City  
Richard A. McKinne, MD, Muskogee  
Mike Sulzycki, Staff  
Susan Tindall, Staff

### **Report of the COUNCIL ON PROFESSIONAL AND PUBLIC RELATIONS**

Subject: **Annual Report**

Presented by: Warren V. Filley, MD,  
Chair

Referred to: Reference Committee II

#### **Introduction**

The Council on Professional and Public Relations is responsible for the

internal and external communications of the Oklahoma State Medical Association, including maintaining understanding among patients and physicians and keeping members informed about programs and policies of the Association.

#### **Review of Activities**

The Council remained active this year dealing with the OSMA's Very Important Patient (VIP) program, an effort to identify low income elderly and place them with a physician who will accept Medicare assignment.

A statewide solicitation of Oklahoma physicians about VIP participation received an excellent response. Over 1,000 physicians in 47 counties have agreed to participate in the program. The number continues to rise. The map attached to this report demonstrates statewide coverage.

Efforts will continue to recruit more physicians into the program. Since physicians are involved with many insurance plans and most offices are very busy, efforts must continue to remind physicians and their staffs about the program and how it functions.

As part of the VIP program, the OSMA continues to work with senior agencies and advocate groups to enroll patients. A flyer (attached to this report) was produced for display in senior centers as were advertising "slicks" for use in senior publications.

The VIP program will continue to be an important function of the OSMA and the Council.

In other activities the Council continues to serve as the OSMA's liaison with both print and broadcast media. In most instances that relationship remains cordial and productive.

The Council works with KTOK radio in Oklahoma City and the Oklahoma News Network (ONN) to produce a monthly commentary by the OSMA President about medical issues. The Council is currently exploring with the ONN the feasibility of producing a regular series offering brief items of medical information to Oklahomans.

The Council continues to produce the monthly OSMA *News* and contributes material on occasions to the *Journal* of the OSMA.

#### **Objectives**

1. Continue to produce OSMA *News*.

2. Produce Medical Updates as needed.

3. Support VIP program.

4. Work with Oklahoma News Network on producing a regular series of featuring medical information.

5. Continue "Viewpoint" commentaries on KTOK and ONN.

6. Work with Oklahoma Educational Television Authority to discuss feasibility of a program — perhaps around Doctor's Day in March — about Oklahoma physicians.

7. Work with specialty societies to produce "phon-a-thons" whereby the public would be given the opportunity to talk to a physician in a given specialty.

8. Produce radio and television public service announcements as needed.

Budget Request: \$45,000.00

Respectfully submitted,  
Warren V. Filley, MD, Chairman  
Burdge F. Green, MD  
Tim L. Grode, MD  
Charles K. Harmon, MD  
James C. King III, MD  
Gary L. Massad, MD  
L. Sam Musallam, MD  
John W. Phillips, MD  
Lee E. Schoeffler, MD  
Michael R. Talley, MD  
James A. Young, MD  
M. Michael Sulzycki, OSMA Staff

### **Report of the COUNCIL ON PUBLIC AND MENTAL HEALTH**

Subject: **Annual Report**

Presented by: Robert M. Mahaffey,  
MD, Chairman

Referred to: Reference Committee II

#### **Introduction**

It is the goal of the Council on Public and Mental Health to provide the citizens of the state, as well as OSMA members, with timely information regarding the medical aspects of public health and oversee needed programs in those areas.



## Review of Activities

This Council, as always, remains one of the OSMA's most active.

As usual, this Council is concerned with the issue of access to health care both for indigents and the working uninsured. Much time was spent by the Council and its Perinatal Task Force in reviewing proposals that would increase access to prenatal care for all Oklahoma women. The Council, after much discussion, decided not to endorse any single proposal but to ask the OSMA to initiate progressive strategies in this area.

Concerning indigent care as a whole, the Council reviewed the American Medical Association's Health Access America plan and its many proactive suggestions. Therefore, rather than making various recommendations of its own, the Council recommends that the OSMA endorse the AMA Health Access America plan and ask appropriate OSMA Councils to work to implement the proposals.

The Council also initiated a program on Alcohol and Drug Abuse Education. The Council commends Tulsa physicians David J. Confer, MD, and Robert W. Block, MD, who have agreed to put on an educational program during the OSMA Annual Meeting to teach physicians and auxiliaries how to return to their communities and become active with church, civic, and school groups in alerting children and teenagers to the dangers of alcohol and drug abuse.

The Council's Perinatal Task Force experienced another busy year. The Task Force completed work on a uniform prenatal care record. The form was presented to PLICO's Loss Prevention Committee and endorsed for use by Oklahoma physicians. PLICO will encourage all Oklahoma doctors who deliver babies to use the Prenatal Task Force form or the one endorsed by the American College of Obstetricians/Gynecologists.

The Perinatal Task Force also has begun to study the issue of maternal drug use, and babies born addicted and will become more active in this area in the year ahead.

The Council's Ad Hoc Committee on AIDS remains very active. The Committee contributes information and articles to the *Journal* of the OSMA as needed and continues to interface with physicians and, perhaps



David Bickham, OSMA executive director, and Sara R. DePersio, MD, newly elected chair of the OSMA Board of Trustees, follow discussions during the board meeting.

more importantly, non-medical community groups concerned with AIDS and the HIV virus. The Committee in cooperation with the Oklahoma State Department of Health and other groups plans a billboard-radio public service announcement campaign to encourage those who may be at risk for HIV to get tested and treated. The Committee's report is attached to this Council report.

A Committee on Physicians and the Environment also was established this year. The Committee's purpose will be to educate physicians on how disregarding the environment can have adverse effects on their patients and to encourage physicians to become active in environmental issues.

The Council's Maternal Mortality Committee meets as needed and did not meet this year.

## Recommendations

So many of the issues of the Council deals with involving access to care directly affect the young and the elderly.

The OSMA already has in place its Very Important Patient Program to help low income senior citizens identify a physician who will take Medicare assignment. But there are many other issues facing elderly patients, such as long-term care, living wills, etc.

Therefore, the Council recom-

mends the OSMA create a Committee on Aging to function under the Council. The Committee on Aging should consist of physicians and lay persons and meet regularly to share concerns; discuss issues; and plan action when necessary.

Likewise, the Perinatal Task Force addresses issues affecting mothers and young children but there are many more issues facing children and teenagers, e.g. drugs, alcohol, AIDS, suicide, etc. Therefore, the Council recommends the OSMA form a Committee on Youth. The Committee should consist of physicians and laymen and should meet regularly to share concerns; discuss issues; and plan action when necessary.

## Objectives

1. Interface with Oklahoma State Department of Mental Health; the OU College of Public Health; the OU College of Medicine; and the Physician Manpower Training Commission.

2. Continue to support the Perinatal Task Force; Maternal Mortality Committee; Ad Hoc Committee on AIDS; and the Committee on Physicians and the Environment.

3. Create a Committee on Aging.

4. Create a Committee on Youth.

5. Continue to develop drug and alcohol education programs.

6. Continue to develop initiatives to alleviate the problem of access of

medical care for indigent and uninsured patients.

Budget Request:	
Council Expenses	\$ 500.00
Subcommittee Expenses:	500.00
<b>TOTAL</b>	<b>\$1,000.00</b>

Respectfully submitted,  
 Robert M. Mahaffey, MD, Chairman  
 Jodie L. Edge, MD  
 Edgar M. Cleaver, MD  
 Gordon H. Deckert, MD  
 Sara R. DePersio, MD  
 Hayden H. Donahue, MD  
 George Gathers, Jr., MD  
 William M. Harsha, MD  
 Dwight Holden, MD  
 Jerry Hordinsky, MD  
 Gregory Istre, MD  
 Bertha M. Levy, MD  
 Mukesh T. Parekh, MD  
 George W. Prothro, MD  
 Ralph W. Richter, MD  
 Joseph D. Ruffin, MD  
 Larry G. Willis, MD  
 M. Michael Sulzycki, OSMA Staff

## Report of the OSMA AD HOC COMMITTEE ON AIDS

Subject: **Annual Report**  
 Presented by: Ronald O. Gilcher, MD  
 Chairman  
 Referred to: Reference Committee II

### Introduction

The Ad Hoc Committee on AIDS is now a permanent committee under the Council on Public and Mental Health. The Committee will decide what title will be appropriate for the Committee, e.g. "Retroviruses Committee."

The charge of the Committee remains the same, to educate physicians and the public about HIV disease.

### Review of Activities

The OSMA Ad Hoc Committee has trained 66 MDs through ongoing one-day conferences around the state. In addition to the MDs, several DOs, RNs, and other health care workers have taken advantage of the training brought to their area, totaling 110 trained. MDs were offered CMEs.

The Committee is undertaking a statewide public awareness campaign with the emphasis in the Tulsa and Oklahoma City areas. The Committee feels it is very important to make the public aware that early testing for HIV infection can be advantageous to the patient since prophylactic measures can be administered to forestall AIDS.

### Recommendations

(1) The attached AIDS UPDATE from the AIDS Division of the OSDH can be subscribed to by making written request to the AIDS Division, Oklahoma State Department of Health, PO Box 53551, OKC, 73152.

(2) The Committee recommends continuing the HIV Education Conferences around the state.

(3) The Committee also recommends continuing with additional public awareness efforts, e.g., an AIDS Call-in Day for public access through the 1-800 number at OSMA.

Respectfully submitted,  
 Ronald O. Gilcher, MD, Chairman  
 Jeffrey A. Beal, MD  
 Aline Brown, MD  
 Jay P. Cannon, MD  
 Donald L. Cooper, MD  
 Jodie L. Edge, MD  
 Douglas P. Fine, MD  
 James D. Funnell, MD  
 John Harkess, MD  
 James P. Hutton, MD  
 Gregory Istre, MD  
 Jennifer Johnson, MD  
 Lloyd A. Owens, MD  
 J. Michael Pontious, MD  
 Philip J. Rettig, MD  
 Eric L. Westerman, MD  
 Richard Wright, PhD  
 Claudia Kamas, OSMA Staff

## Report of the COUNCIL ON MEDICAL SERVICES

Subject: **Annual Report**  
 Presented by: Ronald S. Barlow, MD,  
 Chairman  
 Referred to: Reference Committee II

### Introduction

The Council has continued to provide a service to the public of reviewing complaints and grievances against

physicians. The Council has adopted guidelines for the review and adjudication of certain types of complaints from patients, family members, and other professionals. In certain cases, the Council will review cases presented by insurance companies. The Council has addressed numerous issues as it relates to quality of medical care, peer review, and standards of practice. Under the purview of this Council is the Joint OSMA Pharmaceutical Association Committee. This Committee is comprised of several physicians that have their pharmacy degrees. They deal with a number of issues as it relates to the physician and his interaction with the pharmaceutical industry.

The council is also available to the Board of Trustees and the House of Delegates to handle any special projects that it may desire to assign.

### Review of Activities

The Council has continued to review and adjudicate various types of grievances between physicians and patients or physicians and third party carriers. The Council has met three times since the 1989 OSMA Annual Meeting.

### Council Statistics (1989-1990)

From January, 1989 to April 15, 1990, 43 cases have been reviewed by the Council. The breakdown is as follows: Cases adjudicated and closed — 37; Cases pending for further information and/or review — 6; Total — 43. During this same period of time, 16 phone calls were handled which never evolved into formal complaints.

During the year, the Council developed guidelines to handle disputes between OSMA member physicians and hospital medical staffs involving staff privileges and practice privileges or credentialing. These guidelines were approved by the Board of Trustees, February 18, 1990. The Council also discussed the practice of physicians utilizing physician assistants as assistant surgeons and allowing them to bill 20-25% for their services. After considerable discussion and investigation into this matter, the Council has taken a position that the practice of allowing a physician assistant to bill an insurance company for 20% as an "assistant surgeon" is not acceptable. The Council has also reviewed other



areas such as oxidative therapy and temporomandibular joint syndrome. The Council has been kept up-to-date and monitored the activities of the State Employees and Education Group Insurance Program.

The Joint OSMA and Pharmaceutical Association Committee has written an article on management of patients on H2 antagonists. The article will be presented in the *OSMA Journal* [May 1990] and newsletter. I personally want to thank the members of this Council and the staff who have put in a great deal of time reviewing cases and various topics in order to make tough decisions in the best interest of OSMA and the medical profession.

Respectfully submitted,  
Ronald S. Barlow, MD, Chairman  
James P. Hutton, MD  
John A. Blaschke, MD  
Earl M. Bricker, Jr., MD  
John R. Christiansen, MD  
A. Paul Compton, MD  
Donald L. Cooper, MD  
Harriett J.W. Coussons, MD  
Kurt Frantz, MD  
Jay A. Gregory, MD  
Charles K. Harmon, MD  
Mark A. Kelley, MD  
Bartis M. Kent, MD  
Brent W. Laughlin, MD  
Ray V. McIntyre, MD  
John H. Migliaccio, MD  
Gregory A. Parker, MD  
John R. Perkins, MD  
Donald R. Stout, MD  
Boyd O. Whitlock, MD  
Lyle R. Kelsey, Staff

Joint OSMA Pharmaceutical  
Association Committee  
Tom Whitsett, MD, Chairman  
Melvin Brill, MD  
Robert Daniels, MD  
James D. Funnell, MD  
Carl Manion, MD  
Lyle Kelsey, Staff

## Report of the COUNCIL ON MEDICAL EDUCATION

Subject: **Annual Report**  
Presented by: Lofty L. Basta, MD,  
Referred to: Reference Committee II

### Introduction

The Oklahoma State Medical Association Council on Medical Education studies and makes recommendations related to all matters of maintaining or improving the level of medical competency in Oklahoma, including but not limited to, maintaining liaison with other emerging health professions or occupations, to conducting continuing medical education programs in Oklahoma. The Council also monitors continuing medical education standards as they may be required by association policy.

### Review of Activities

During the year, the Council corresponded with the following accredited hospitals, requesting a list of CME programs they have sponsored during the last year and any changes in medical directors:

Baptist Medical Center, OKC  
Duncan Regional Hospital,  
Duncan  
Hillcrest Medical Center,  
Tulsa  
Mercy Health Center, OKC  
Presbyterian Hospital, OKC  
South Community Hospital, OKC  
St. Anthony Hospital, OKC  
St. Francis Hospital,  
Tulsa  
St. John Medical Center,  
Tulsa  
Stillwater Medical Center,  
Stillwater

The Physician Nurse Committee, appointed by John Alexander, MD, as president of the OSMA, met twice in the past year. (See attached report.) The charge of the Committee is to improve physician and nurse relations.

### Recommendations

(1) The Council recommends the OSMA consider endorsing the curriculum "Growing Healthy." (Copy Attached.) (See Resolution #22 in Reference Committee II.)

(2) The Council recommends the OSMA encourage physicians to interact with young people in their communities to encourage more students to become interested in medical school. (See Resolution #21 in Reference Committee II.)

(3) The Council recommends the OSMA continue to support and work for additional state funding for the

OUHSC College of Medicine.

(4) The Council on Medical Education recommends the Physician/Nurse Committee continue to meet in the upcoming year as a subcommittee of this Council.

Budget Request: \$2,000.00

Respectfully submitted,  
Lofty L. Basta, MD, Chairman  
Irwin H. Brown, MD, Vice-Chairman  
Edward Brandt, MD  
Robert T. Buchanan, MD  
Dan Duffy, MD  
Ward M. Hardin, MD  
John Huser, MD  
Robert W. King, Jr., MD  
Thomas N. Lynn, Jr., MD  
Richard McDowell, MD  
Harris J. Moreland, MD  
David Schrum, MD  
B. Shushan Sharma, MD  
Tim Smalley, MD  
Edward J. Tomsovic, MD  
Terri Gallmeier, PhD  
Claudia Kamas, OSMA Staff

Attachment to the Report of the  
Council on Medical Education

### REPORT TO THE PHYSICIAN/NURSE COMMITTEE

In an effort to improve physician and nurse relations, John Alexander, MD, President of the Oklahoma State Medical Association, appointed a Physician/Nurse Committee with the following members:

John R. Alexander, MD, Tulsa  
Lofty L. Basta, MD, Tulsa  
William L. Hughes, MD, OKC  
Billy D. Dotter, MD, Okeene  
Peggy Hart, RN, Konawa  
Pam Price Hoskins, RN, Tulsa  
Barbara Clyde, RN, Lawton  
Cindy Lyons, RN, Tulsa  
Kathi Straw, RN, Norman  
Frances Waddle, RN, OKC  
Andrea West, RN, Ada  
Staff: Claudia Kamas

The Committee has met two times. At the last meeting, the members agreed that OSMA would write a letter to the OUHSC stating that the liaison committee of the OSMA and ONA voice disapproval of an RCT curriculum. In lieu of this curriculum, the committee urges the expansion and further funding of the existing programs for registered nurses. As an additional step, OSMA will let the AMA know that OSMA is not in favor of the RCT licensing.

A task force of OSMA/ONA staff will gather information on the nurse shortage in the Tulsa area. This information will be reviewed at the next committee meeting.

The ONA and OSMA representatives agreed to work together towards establishing a nationally accredited, state supported baccalaureate level program to graduate 100 students annually in the Tulsa area. Once the data is gathered, the committee will make formal recommendations to the OSMA Board of Trustees.

There are several OSMA/ONA joint public relations efforts afoot showing compatibility between physicians and nurses. These will be published in the *OSMA Journal* and the ONA monthly publication.

There was a lot of discussion on the importance of doctor/nurse relationships in hospitals and office settings.

There was discussion on setting programs to be presented in mandatory attendance situations, i.e. presentations to general hospital staffs or possibly loss prevention seminars.

The committee members feel that this committee has created an abundance of good and a cooperative attitude between nurses and physicians.

Attachment to the Report of the  
Council on Medical Education  
Reference Committee II

#### "GROWING HEALTHY" IS A UNIQUE PROGRAM

Comprehensive — covers psychologic, social and physical components

Starts in Kindergarten—Grade 7 with Teenage teaching modules Grades 8—12

Includes systems structures and function (science) enriches "English" vocabulary and emphasis hazards of smoking and alcohol as well as drugs, AIDS, violence, etc. A special program about sex education is available and can be incorporated.

Flexible and adaptable: effective regardless of social class, race, town or neighborhood (refer to list of schools involved)

Universal acceptance by teachers, students, and families. Validated through longitudinal studies and refined over many years of maturing as a curriculum.

Hands on utilizing a variety of educational media which makes a difficult subject amusing and fun.

Teacher training is the heart of the program.

Establishes measurable objectives and performance standards.

Time and Cost Effective — undue duplication is avoided. Avoids the fragmentation of teaching about drugs, alcohol, teenage pregnancy, social, etc, as separate subjects. All of these have common underpinnings and components.

Upgrade, quality control, communication can be by all participants.

## Report of the YOUNG PHYSICIANS SECTION

Subject: **Annual Report**

Presented by: Garry Pohoretsky, MD,  
Chairman

Referred to: Reference Committee II

### Introduction

Recognizing the importance and involvement of young physicians in organized medicine, the American Medical Association, in June of 1986, created the AMA Young Physicians Section. Similarly, in May of 1987, the Oklahoma State Medical Association amended its Bylaws to create the OSMA Young Physicians Section.

### Review of Activities

The OSMA Young Physicians Section continues to pursue greater involvement from its under-40-years-of-age members.

In the American Medical Association House of Delegates, Oklahoma's representation is equally strong with Garry Pohoretsky, MD, and Donald E.

Crawley, MD, serving as Delegate and Alternate Delegate respectively.

### Conclusions

The OSMA Young Physicians Section intends to increase its membership and thereby bring the views and interests of young physicians before the OSMA and AMA. Thanks largely in part to the OSMA's continued Unified State Status, the Young Physicians Section in Oklahoma will once again be recognized as a national leader in membership recruitment and retainment.

On behalf of the YPS Section, may I convey to the OSMA our sincere appreciation for its support.

Budget Request: \$3,000.00

Respectfully submitted,  
Garry Pohoretsky, MD, Chairman

## Report of the OSMA MEDICAL STUDENT SECTION

Subject: **Annual Report**

Presented by: M. Michael Sulzyski

Referred to: Reference Committee II

### Introduction

The OSMA Medical Student Section consists of 350 members from the OU College of Medicine at the Health Sciences Center and the OU College of Medicine—Tulsa. The purpose of the Section is to introduce students to organized medicine and the issues that affect the practice of medicine.

### Review of Activities

The Section sponsors a welcoming picnic for freshmen medical students and looks forward to planning a welcoming reception for third-year students in Tulsa.

In addition, the Section sponsors a series of Roundtable Luncheons that brings freshmen students together with practicing physicians to discuss the legal, ethical and regulatory aspects of the practice of medicine.

The Section also sponsors an AIDS Speakers Bureau and produced a slide presentation which students take to high school and college groups to encourage those students to consider careers in medicine.

Medical student members also attend meetings of OSMA Councils and Board of Trustees.

Medical student delegates from both campuses represent the OSMA and their schools at national meetings of the AMA Medical Student Section.

Budget request: \$11,000.00

Respectfully submitted,  
M. Michael Sulzyski,  
OSMA Staff

## Report of the HOSPITAL MEDICAL STAFF SECTION

Subject: **Annual Report**

Presented by: William O. Coleman,  
MD, Chairman

Referred to: Reference Committee II

### Introduction

The Hospital Medical Staff Section provides a means to address the relationship between members of the OSMA and hospital medical staffs. It establishes and maintains a communications liaison with organized hospital medical staffs, develops policy recommendations regarding medical staff relations for consideration by the association, and establishes and maintains relations with federal and state government entities having statutory or regulatory jurisdiction affecting hospital medical staffs. The Section monitors and communicates to the OSMA the activities of the Hospital Medical Staff Section to the American Medical Association.

### Review of Activities

The Hospital Medical Staff Section is hosting a breakfast meeting on May 5, 1990, during the Annual Meeting of the OSMA. HMSS has had an excellent response. Some of the physicians responding are not members of the OSMA. In order to have a broader participation of hospital staffs, it has been recommended that the Section by-laws be revised to include physicians appointed by the chief of the medical staff of each hospital and/or those physicians elected by a vote of the active hospital staff. HMSS will have a voting delegate at the 1990 OSMA Annual Meeting.





Humorist Jeanne Robertson coaxes a rendition of "Oklahoma" from President Perry A. Lambird, MD, during inaugural festivities. Behind them, AMA Trustee William A. Jacott, MD, knows he's up next.

John Foley, Asst. District Attorney, OKC  
 Terri Gallmeier, PhD, OUHSC  
 Thomas W. Gruber, District Attorney, Alva  
 Senator Maxine Horner  
 Fred B. Jordan, MD  
 Thomas Kemper, OKC Commission On Children and Youth  
 William R. Kennedy, DO  
 Representative Linda Larason  
 Ms. Chloe Shi Odom, Lt. Governor's Office  
 Sherry Plemmons, Committee on Child Abuse, State Health Dept.  
 Christian Ramsey, Jr., MD  
 Jane Schwartz, MD, OUHSC  
 Honorable Deborah Shallcross  
 Teresa Stacy, MD, OUHSC  
 Diana Stell, DHS  
 John Stuemky, MD  
 Steven Suttle, District Attorney, Altus  
 Julie Wherry, Juvenile Justice Center, OKC  
 Bob Jones, OK Osteopathic Assn.  
 Claudia Kamas, OSMA

### Recommendations

The goal of the Hospital Medical Staff Section is to continue to increase the membership and visibility in Oklahoma.

Budget Request: \$1,000.00

Respectfully submitted,  
 William Coleman, MD, Chairman

## Report of the OSMA CHILD ABUSE TASK FORCE

Subject: Annual Report  
 Presented by: Ray V. McIntyre, MD  
 Referred to: Reference Committee II

### Introduction

The Oklahoma State Medical Association is nearing completion of its task. What was Senate Bill 73 last year is now revised and reintroduced as HB 2331. This was a bill introduced by Senator Ben Brown at the request of Ray V. McIntyre, MD, while serving as President of OSMA. A subcommittee of the task force has met and re-

written the bill to carry out the same concept with some revision.

### Review of Activities

HB 2331 passed out of the House Committee on Children and Youth which is chaired by the House author, Rep. Linda Larason. The bill passed out of the House of Representatives.

In the Senate Committee on Human Resources, HB 2331 passed with a crippled title so the day after the bill passes the Senate floor, it will go to conference committee to work out details.

### Recommendations

The Child Abuse Task Force recommends that OSMA continue to support the bill in its current form.

Respectfully submitted,  
 Ray V. McIntyre, MD, Chairman  
 Ann Beam, DHS  
 Robert Block, MD  
 Barbara Bonner, PhD, OUHSC  
 Senator Ben Brown  
 Judge Sidney D. Brown  
 Eva Carter, Institute for Child Advocacy  
 Ms. Kyle Dahlem, OEA  
 Senator Kay Dudley

## Report of the JOURNAL OF THE OKLAHOMA STATE MEDICAL ASSOCIATION

An Addendum to the Report of the  
 Council on Professional and Public Relations

Subject: Annual Report  
 Presented by: Ray V. McIntyre, MD,  
 Editor-in-Chief  
 Referred to: Reference Committee II

### Introduction

The JOURNAL of the Oklahoma State Medical Association has maintained its position as one of the nation's finest medical publications by providing its readers with timely, significant scientific articles and special feature stories. It continues to serve as an open forum for the exploration and discussion of issues vital to the physicians of Oklahoma and remains a popular and important benefit of membership in the association.

### Award from Sandoz

The JOURNAL has earned national recognition once again, winning Honorable Mention in this spring's 15th

annual Sandoz Pharmaceuticals medical journalism competition.

This is the third Sandoz award in four years for the JOURNAL, which won a Special Award last year and First Prize in 1987. The JOURNAL also finished first in 1978 and earned Honorable Mention in 1983.

The Sandoz awards, which recognize the unique importance of state and local professional journals, are based on outstanding design and editorial qualities. Judge Paul Fisher, professor at the University of Missouri School of Journalism, commended the JOURNAL's neatness, attention to detail, and strong editorial performance. He concluded, "It's a very solid, very professional, very well edited publication."

Craig D. Burrell, MD, vice president of Sandoz, said, "Readers of medical and pharmaceutical publications receive stacks of journals, magazines, and other mail. It is a tribute to the editorial staffs of these low-budget local publications that they are so avidly read by many readers who rank them with major national media."

Twenty-seven prizes were awarded this year to publications in five categories — state medical associations, local medical publications, state pharmaceutical associations, hospitals, and newsletters.

#### Charlotte S. Leebron Award

The Editorial Board has named Warren M. Crosby, MD, as winner of the 1989 Charlotte S. Leebron Award. The \$500 Leebron Award, presented at the OSMA Annual Meeting, goes to the physician author(s) of the best scientific paper published in the JOURNAL each year. Dr. Crosby's winning paper, "Twin Pregnancy: An Appraisal of Management Options," appeared in the October 1989 issue. Board members noted it was increasingly unusual to find such a comprehensive paper written by a single author.

#### Review of Activities

In 1989, the JOURNAL published



James B. Pitts, MD, Oklahoma City, is one of five physicians commended by the Board of Trustees for his years of service as a delegate to the AMA. Presenting the award is M. Joe Crosthwait, MD, Midwest City, chairman of the Oklahoma delegation.

28 scientific manuscripts and 6 other major articles representing the efforts of 84 different authors.

The Leaders in Medicine series continues, focusing on state physicians who have made significant contributions to Oklahoma medicine and who, in the opinion of the Editorial Board, deserve to be recognized for their accomplishments. The December 1989 issue featured a story on Leroy Goodman, MD, of Yukon.

A special tribute to Dr. Mark R. Johnson highlighted the June 1989 issue. Dr. Johnson was editor-in-chief of the JOURNAL for more than 20 years before stepping down last year. He serves now as editor emeritus.

Recognizing the importance of extending JOURNAL distribution to resident physicians, the OSMA House of Delegates voted last year to increase resident dues to \$21 to cover the cost of a subscription. Sample copies were included in membership solicitations mailed to residents last fall, and by May 1, 1990, some 265 residents had paid their dues and were receiving the JOURNAL.

#### Budget Notes

Cost cutting measures instituted by the JOURNAL in 1988 reduced total printing expenses more than \$15,000 from the 1987 level. And while savings in 1989 were not as dramatic, the downward trend did continue, with printing costs totaling almost \$3,000 less than in 1988.

Subscription rates for 1991 will be held at the current level, \$20 a year for members and \$30 a year for non-members.

Advertising rates will be raised 10%, effective January 1, 1991. The increase will offset a 5% rate hike from the Transcript Press later this year and a likely increase in second class postage rates next January, which local officials guess will be 20%-25%.

Respectfully submitted,  
Ray V. McIntyre, MD, Editor-in-Chief  
Harris D. Riley, Jr., MD, Editor  
Robert L. Scott, MD, Editor  
Susan Records, Managing Editor



# Reference Committee III REPORTS TO THE HOUSE OF DELEGATES

## Report of REFERENCE COMMITTEE III

Presented by: Charles K. Harmon,  
MD, Chairman

Mr. Speaker and Members of the House of Delegates, Reference Committee III has carefully considered the items which were referred to it and submits the following report:

### (1) Report of the Council on Governmental Activities

#### *Recommendation:*

Mr. Speaker, your Reference Committee recommends that the Report of the Council on Governmental Activities be adopted.

Reference Committee III wishes to recognize and commend the outstanding work of this Council under the leadership of Council Chairman Perry A. Lambird, MD.

### (2) Report of the Council on State Legislation and Regulation

#### *Recommendation:*

Mr. Speaker, your Reference Committee recommends that the Report of the Council on State Legislation and Regulation be adopted.

Reference Committee III wishes to recognize the importance of the Council on State Legislation and Regulation and commends all members on the Council, Chairman Larry L. Long, and Otie Ann Fried.

### (3) Report of the Council on Member Services

#### *Recommendation:*

Mr. Speaker, Reference Committee III recommends that the report of the Council on Member Services be filed.

Mr. Speaker, the Reference Committee feels that the endorsement of any program that might result in income to the OSMA should not be at the expense of the individual members of the Association.

Reference Committee III commends all members of this Council including the Chairman William G. Bernhardt, MD.

### (4) Report of the Oklahoma Medical Political Action Committee

#### *Recommendation:*

Mr. Speaker, your Reference Committee III recommends that the Report of the Oklahoma Medical Political Action Committee be filed.

Reference Committee III wishes to recognize and commend the outstanding work of this Committee and its Chairman, Larry L. Long, MD. Reference Committee III would like to recognize Camille Harrison and the entire OSMA Auxiliary on behalf of this important committee.

### (5) Report of the Physician Recovery Committee

#### *Recommendation:*

Mr. Speaker, your Reference Committee III recommends that the Re-

port of the Physician Recovery Committee be filed.

Reference Committee III has reviewed the Report of the Physician Recovery Committee and notes the significant success in the program. The Committee wishes to express its appreciation to J. Darrel Smith, MD, Medical Director, and Mason Lyons, MD, Assistant Medical Director, for their commitment to the program.

### (6) Resolution 6 - IRS Proposed Regulations

#### *Recommendation:*

Mr. Speaker, your Reference Committee recommends that Resolution 6 be adopted.

Reference Committee III recognizes the need for the withdrawal of the proposed IRS Regulations outlined in Resolution 6 and heard no opposition to this Resolution.

### (7) Resolution 7 - Feasibility Study - State Insurance Pool

#### *Recommendation:*

Mr. Speaker, your Reference Committee III recommends that Resolution 7 be referred to the OSMA Board of Trustees.

Reference Committee III heard considerable comments regarding state insurance risk pools and recognizes the need to expand insurance coverage to those now uninsured or underinsured. The complexity of this issue which is currently under study by the AMA, Congress, DHS, the insurance industry, and others, requires intensive study.

### (8) Resolution 8 - Medicare Regulations

#### *Recommendation:*

Mr. Speaker, your Reference Committee III recommends adoption of Resolution 8 as amended below.

Omit "as they are released" on Line 12 and insert the words "prior to their implementation."

Mr. Speaker, your Reference Committee concurs with the intent of Resolution 8 as it pertains to regulations associated with Medicare.

### (9) Resolution 13 - Medicare Single-Zone Reimbursement; Resolution 15 - Budget Neutral Medicare Single-Zone Reimbursement

#### *Recommendation:*

The Reference Committee recommends that Resolution 13 be adopted in lieu of Resolution 15 and that the Stephens County Medical Society be added as a co-author of the Resolution. The Reference Committee further recommends that Resolution 15 not be adopted.

Mr. Speaker, the Reference Committee heard support for both Resolutions 13 and 15. Both Resolutions request the same resolve.

#### **(10) Late Resolution 18 - Medicare Reimbursement Campaign**

##### *Recommendation:*

Mr. Speaker, Reference Committee III recommends that Late Resolution 18 be adopted and that an assessment be levied at the discretion of the Board of Trustees not to exceed the limits specified in the Resolution.

Mr. Speaker, Reference Committee III heard widespread support for a special assessment of the OSMA membership to finance a campaign to achieve equal and fair reimbursement by Medicare for all Oklahoma physicians. This Reference Committee believes that this process will only be accomplished through the support of Medicare beneficiaries and senior advocacy groups.

#### **(11) Late Resolution 21 - University of Oklahoma College of Medicine Funding**

##### *Recommendation:*

Mr. Speaker, your Reference Committee III recommends that Late Resolution 21 be adopted as amended to read as follows:

Your Reference Committee III wholeheartedly concurs with the intent of Resolution 21 and amends by clarification. On Line 9 delete the "." following the word "regulation" and insert the language "for both campuses of the University of Oklahoma College of Medicine."

#### **(12) Late Resolution 23 - Rural Medical Care**

##### *Recommendation:*

Mr. Speaker, your Reference Committee recommends that Late Resolution 23 be adopted.

Mr. Speaker, Reference Committee III concurs with this Commendation/Resolution and is hopeful that the

proposals of the rural health care coalition be adopted.

#### **(13) Late Resolution 26 - Legislative Intervention in Implementing the "125% Rule"**

##### *Recommendation:*

Mr. Speaker, your Reference Committee III recommends that Late Resolution 26 be adopted.

Mr. Speaker, Reference Committee III recognizes that legislative intervention is needed to eliminate the 125% rule proposed by Congress and therefore recommends the adoption of Resolution 26.

#### **(14) Late Resolution 28 - Pro Program Study**

##### *Recommendation:*

Mr. Speaker, your Reference Committee III recommends that Late Resolution 28 be adopted.

Mr. Speaker, your Reference Committee recommends adoption of the Report of Reference Committee III, as amended, as a whole.

Mr. Speaker, that concludes the report of Reference Committee III. As Chairman, I would like to take this opportunity to thank the members of the Committee for their time and effort associated with this report.

Respectfully submitted,  
Charles K. Harmon, MD, Tulsa,  
Chairman

Thomas D. Howard, MD, Idabel  
J. David Lackey, MD, Tulsa  
Gordon D. Lantz, MD, Tulsa  
Clarence Robison, Jr., MD,  
Oklahoma City  
Tom H. Shurley, MD, Altus  
Wayne L. Wasemiller, MD,  
Oklahoma City  
Robert W. Baker, III, Staff  
Claudia Kamas, Staff  
Bobbie Brown, Staff

## **Report of the COUNCIL ON GOVERNMENTAL ACTIVITIES**

Subject: Annual Report

Presented by: Perry A. Lambird, MD,  
Chairman

Referred to: Reference Committee III

## **Introduction**

The Council shall review federal legislation and regulation of concern to the medical profession or the public health, and shall initiate activities or undertake appropriate responses on matters of priority interest. It shall also establish and maintain relations with federal government entities having statutory or regulatory jurisdiction affecting the medical profession, the delivery of health care, or the public health. In cooperation with other association councils and committees, it shall develop policy recommendations for consideration by the Board of Trustees, and it shall prepare testimony and otherwise conduct the federal legislative program of the association.

## **Review of Activities/Issues**

During 1989-90, the Council continued its delegation visits to Washington, D.C., in an effort to convey the OSMA positions on the various key health issues being debated before Congress. Special emphasis was given to the 1989 Deficit-Reduction package. Congress's tentative schedule had called for passage of the "reconciliation" bill by June — then July. However, final action was delayed until just before Thanksgiving. A complete copy of the Deficit-Reduction Act provisions may be obtained from the OSMA office.

In addition to the Deficit-Reduction Act, the Council on Governmental Activities has been reviewing the recently released Fiscal year 1991 Administration's Proposal. The FY 91 Budget was reviewed by the Council on January 31, 1990, just two days following its release. The proposed 1991 budget for the Health Care Financing Administration (HCFA) totaled \$143.6 billion for Medicare and Medicaid benefits and operating costs. Spending for the Medicare and Medicaid programs represents 31% of the total Health and Human Services budget for 1991. Overall, the budget continues in the deficit-reduction vein aimed at reducing unnecessary spending and cost increases while at the same time improving the equity in payment levels for services and maintaining quality services to Medicare and Medicaid beneficiaries. In 1991, Medicare and Medicaid programs will pay for the health care costs of approxi-





Seated at the Board of Trustees meeting are (l to r) James V. Miller, MD, Ardmore; Noble L. Ballard, MD, Altus; Richard L. Winters, MD, Poteau; James B. Pitts, MD, Oklahoma City; John A. McIntyre, MD, Enid; Leo Meece, MD, Woodward; Dennis K. McIntyre, MD, Enid; and Jay A. Gregory, MD, Muskogee.

mately 57.1 million elderly, disabled and poor Americans.

Following is a partial listing of the Council's *preliminary* positions on the FY 91 proposals. A complete list may be obtained from the OSMA office.

#### Part A Provisions

(1) **OPPOSE** increased payments to Medicare Risk — Contracting HMOs.

(2) **OPPOSE** reduction of Capital Payments to Rural Hospitals by 15% and Urban Hospitals by 25%.

(3) **OPPOSE** cap on Interim and Resident-To-Bed ratios at FY 1989 levels.

#### Part B Provisions

(1) **OPPOSE** update for Primary Care Services. (The Council believes that payments should be equitable for all services.)

(2) **OPPOSE** the reduction of Payments for Overvalued localities.

(3) **OPPOSE** the reduction of Radiology and Anesthesia Fees.

(4) **OPPOSE** voluntary Hospital Physician Participation. (Establishes Medicare participating physician Medical Staff Hospitals.)

#### Additional Legislative Items

**CAMPAIGN FINANCING** — The AMA and OSMA oppose the creation of a costly public financing system for campaigns. However, we do support voluntary financing as it encourages individual participation in the elec-

tion process. We oppose restricting OMPAC as it limits individual participation in the election process as well as hinders the members' political education.

#### Clinical Laboratory Services Pending Regulations

Proposed CLIA rules would mandate, for all laboratories other than those doing screening tests, that a board certified pathologist or PhD (biology, physics or chemistry) serve as director with a limit of three labs per director. Additionally it is proposed that a ASCP medical technologist or equivalent be on site when tests are performed.

The OSMA opposes these rules for a number of reasons:

(1) The rules close most rural hospitals. Regulations are overkill as, presently, an MD member of a hospital staff serves as the Medical Director and a consultant pathologist/doctoral level scientist serves to assist. If implemented, a PhD physicist would be directing the medical laboratory when a medical director cannot!

(2) The rules would close most physician office labs.

(3) The rules would close all Indian Health Service Labs.

(4) The rules would close major armed services hospitals (Vance-Tinker).

(5) At least 34 Oklahoma Hospitals would be forced to close largely because of the requirement that the

medical technologist must have more than six years of full time experience.

The OSMA supports the following:

(1) Medical Doctors on hospital staff could direct labs and consultative assistance of pathologist/doctoral level scientist.

(2) The physician (MD or DO) should be allowed to direct labs serving his/her own patients.

(3) Personnel standards below the director level should be deleted.

#### Medicare Physician Regulation Relief Amendments

This legislation, supported by the AMA calls for five substantial Medicare reforms for physicians.

(1) Would mandate that HCFA allow "attending" physicians to continue to bill Medicare for services provided to a patient by a colleague who is simply "covering" for a temporarily absent "attending" physician.

(2) Would prohibit carrier charges for necessary data that are needed to comply with Medicare requirements.

(3) Would require that Medicare carriers provide physicians with numerical screens utilized in making "medical necessity" claim denials.

(4) Would allow medical societies to represent physicians in appeals of inappropriate denials.

(5) Would establish a HCFA Advisory group to review Medicare regulations prior to implementation. The group would be comprised of both participating and non-participating physicians.

#### Conclusion

Overall, the Council on Governmental Activities continues to work well with the members and staff of Oklahoma's Congressional Delegation. The Council will continue to review the substantial volume of legislation and regulations and will report our findings to the OSMA.

Respectfully submitted,  
Perry A. Lambird, MD, Chairman  
Norman, L. Dunitz, MD,  
Vice-Chairman  
Richard J. Boatsman, MD  
William D. Borkon, MD  
Ed L. Calhoon, MD  
Charles D. Cook, MD  
Jerome M. Dilling, Jr., MD  
Jay A. Gregory, MD  
G. Lance Miller, MD

Philip Mosca, MD  
 John B. Nettles, MD  
 George M. Pikler, MD  
 Ronald H. White, MD  
 Kenneth W. Whittington, MD  
 Larry L. Long, MD  
 Mrs. Maureen Bynum, Auxiliary  
 Mrs. Sherry Strebel, Auxiliary  
 Mrs. Vaughn Dean Fuller  
 Mr. John Montgomery  
 Robert W. Baker III, OSMA Staff

## Report of the COUNCIL ON STATE LEGISLATION AND REGULATION

Subject: **Annual Report**

Presented by: Larry L. Long, MD,  
Chairman

Referred to: Reference Committee III

### Introduction

The 1989 Legislative Session has been marked by a number of firsts. This is the first year the Legislature has worked under the new "shortened session" legislative agenda. This is the first year we have had a special session run concurrently with the regular session. In addition, we are currently working under two budget scenarios: one if the education bill passes; and, one if the bill does not.

The new agenda has made it very difficult for associations like ours to have the kind of input we once had simply because we no longer have the luxury of sitting down and working through an issue; if one hasn't resolved the problem before session starts, chances are it won't be resolved during session. We find ourselves moving into a year around session with interim work being very important to our legislative agenda.

It is interesting to note, at the writing of this report, that the two major legislative agenda items of the year have died in the Senate. The House of Representatives passed the education reform and tax bill and the Senate is holding the measure because they are short two emergency votes. The House and the Senate worked during the interim on the workers compensation laws, along with a hired professional consultant, and came forth with a



Edward N. Brandt, Jr., MD, Oklahoma City, executive dean of the University of Oklahoma College of Medicine, takes a coffee break.

legislative proposal which would make significant changes in the workers compensation laws. The House passed the bill. The Senate Judiciary Committee held a hearing on the bill but never brought the bill up for a vote.

As was expected, abortion was a major issue at the beginning of session. Numerous bills were introduced in the House and the Senate but the House Health, Mental Health and Veteran Affairs Committee set the precedent for legislative action by deciding not to hear any of the bills this year because of the number of issues that are pending before the Supreme Court. Several of the bills were disturbing regarding the kind of penalties that would be imposed on physicians. One in particular would require excessive amounts of liability insurance in order to perform abortions. Another would require all physicians' offices be licensed. The Oklahoma State Medical Association's position is that of the American Medical Association's position . . . "the early termination of pregnancy is a medical matter between the patient and the physician, subject to the physician's clinical judgment, the patient's informed consent and the availability of appropriate facilities."

During the interim, a task force was held regarding the whole issue of the State PPO and employees health insurance. Our President, Dr. Alexander, served on the committee and represented physicians' interests. The

committee's work has resulted in legislation. Unfortunately, at the writing of this report, no one has been able to see the text of the legislation and we will not be able to see the text until it comes out of conference committee. We have a fairly good grasp of the content of this legislation but nothing is definite until it is in the bill.

### Highlights

**OSMA sponsored SB 462.** The intent of the bill is to exempt PLICO from the insurance premium tax when the collection of monies is the result of a directive from the Insurance Commissioner and the money is for a capital infusion. This bill would give PLICO some financial relief concerning the \$25 million PLICO has to raise over a three-year period in order to satisfy the Insurance Commission's directive. As most of you know, this capital infusion has been required as a result of the Supreme Court's decision to overturn the statute of limitations law. The bill has passed the Senate and the House and will go to conference committee.

**OSMA sponsored HB 2331.** This bill creates the Child Abuse Examiners Act and establishes the Office of Child Abuse Examination. Creates a statewide system of medical evaluation for children suspected to be the victims of child abuse or neglect. Physician training and reimbursements for treatments would be offered to those physicians participating in the statewide pool. This bill was introduced last year as the initiative of Ray McIntyre, MD, immediate past president of the OSMA.

**OSMA sponsored HB 1963** along with the Osteopathic Association, the Pharmacy Association and the Bureau of Narcotics and Dangerous Drugs. This bill is the compromise bill in lieu of the triplicate prescription legislation. It would require the pharmacists to enter all Schedule II drugs in a computer which would feed into the Bureau of Narcotics and Dangerous Drugs for monitoring purposes. The bill also establishes the anti-drug diversion fund. This bill would not require any changes in the way physicians prescribe drugs. This bill is before the House for acceptance of Senate amendments.

**OSMA sponsored SB 620.** This bill would extend the state's liability



coverage to Tulsa physicians who are practicing medicine in a teaching situation. The current law did not extend the same liability coverage to physicians in Tulsa who were in a teaching situation as it did to physicians who were in Oklahoma City. The problem centered around the definition of a teaching hospital and since Tulsa does not have a teaching hospital the current law did not seem to cover them. This bill has passed the Senate and has passed the House Judiciary Committee.

**OSMA sponsored HCR 1056.** This resolution encourages physicians to participate in the VIP program sponsored by the OSMA and the Oklahoma Osteopathic Association to enable low-income Medicare recipients to identify physicians who will provide health services and accept Medicare assignment. This bill has passed the House and the Senate Committee and is pending final action before the Senate.

**OSMA is supporting HB 2098.** We worked on this bill with the author, Representative Carolyn Thompson, during the interim. This bill creates the Maternal and Infant Care Act; requiring the State Department of Health to establish program of targeting management for maternity and infant care; creating the Planning for Maternal and Infant Care Task Force. This bill would bring physicians who deliver indigent babies under the state tort claims act. The bill has passed the House and out of Senate committee. The bill will probably go to conference.

#### **Legislation opposed**

**OSMA opposed HB 2179.** This bill would have prohibited cost shifting by medical facilities. It would have required any physician who offered a discount rate to apply that rate to all patients. The bill is dead.

**OSMA opposed HB 1122.** This bill would have given plaintiff attorneys access to the defendant's liability policy limits. The bill is dead.

**OSMA opposed SB 341.** This bill would have required scheduled drugs to have been written on triplicate prescription forms. The bill is dead.

**OSMA opposed SB 740.** This bill would have created the Oklahoma Health Care Information System Act. The bill is dead.

**OSMA opposed HB 1914.** This

bill would have required all physicians to post a sign in their office indicating if they took Medicare assignment. If they refused to post such a sign, they would be required to take assignment. The bill is dead.

#### **Conclusion**

There are a number of other bills that are not mentioned in this highlight report that the Association has supported, opposed and amended. We are tracking close to 150 pieces of legislation this year. We still expect to see some kind of legislation on the employed uninsured; however, this legislation will not be ready until the end of session. The most controversial bill for us this session has been HB 1354, the new law creating the Medical Radiation Health and Safety Act. The bill has been difficult to stop because the medical community has been divided on this legislation. At the writing of this report, the bill is before the Senate. We are actively working on this legislation.

The Council on State Legislation and Regulation would like to thank the general membership for all the time and effort they have given in order to make our legislative efforts successful. We are here to serve your interests and would hope you would feel free to visit with us about any concerns you have which would be appropriate for this Council to address.

Respectfully submitted,  
Larry L. Long, MD, Chairman

### **Report of the COUNCIL ON MEMBER SERVICES**

Subject: **Annual Report**  
Presented by: William G. Bernhardt,  
MD, Chairman  
Referred to: Reference Committee III

#### **Introduction**

The Council on Member Services is charged with the responsibility of researching and developing programs and/or services that directly benefit the members of the OSMA.

#### **Review of Activities**

The Council on Member Services continually reviews all of the endorsed

OSMA insurance programs to determine if they are meeting the needs of the membership. A summary of each insurance program is attached to this report. In addition to the review of the insurance programs, the Council has studied one other area that they feel is of interest to the OSMA members, particularly young physicians starting out in practice. The Council, through a special ad hoc committee, studied the whole area of physician investment, pension and retirement programs. The ad hoc committee has recommended that the Council approve endorsement of the AMA Investment and Retirement Program as offered through their subsidiary, AMA Advisors, Inc. This recommendation would have no financial obligation on the OSMA. This recommendation will be taken before the Board of Trustees for approval.

The Council continues to offer seminars of interest to the medical doctor and office staff. A series of Medicare workshops and coding seminars on the ICD-9 and CPT have been conducted throughout the year. The Council is currently offering audiocassette tapes on most of the seminars that are sponsored by OSMA.

The Council continues to look at other products and services that would be of interest to the OSMA membership. All of these services and educational seminars are designed to offer the physician a benefit for membership as well as an opportunity for the OSMA to generate nondues income. It is the policy of the Council on Member Services to make sure that none of the services offered will generate income to the OSMA at the expense of the member physician.

I would personally like to thank each Council member for their interest and input into the Council activities.

Respectfully submitted,  
W.G. Bernhardt, MD, Chairman  
C. Terrence Dolan, MD  
Tim S. Caldwell, MD  
E. Edwin Fair, MD  
Wilfred S. Gauthier, MD  
Joel K. Gist, MD  
Joe Ray Hamill, MD  
David L. Harper, MD  
William S. Harrison, MD  
Thomas H. Hester, MD  
Herbert M. Kravitz, MD



Dennis K. McIntyre, MD  
 Gene L. Muse, MD  
 James J. Snipes, MD  
 S. Fulton Tompkins, MD  
 Lyle R. Kelsey, Staff

April 18, 1990

#### DISABILITY INCOME INSURANCE

The Oklahoma State Medical Association sponsored Disability Income Insurance program offers a monthly benefit to \$6,000 per month. The policy provides coverage in the physician's occupation or recognized specialty for up to his lifetime, as a result of a disabling accident or sickness. Other features of the policy include a renewal guarantee to age 70, waiver of premium and survivors benefit. Optional coverages include:

- Residual Benefit (Partial Disability)
- Cost of Living Adjustment Benefit
- Guaranteed Purchase Option
- Recovery Benefit
- Hospital Indemnity
- Accidental Death and Dismemberment

Policy Benefits available are:

1. 5 years Accident and 2 years Sickness
2. Lifetime Accident and 7 years Sickness
3. Lifetime Accident and age 65 Sickness
4. Age 65 Accident and Sickness
5. Lifetime Accident and Sickness

The total number of insureds on the newest policy form is 284 (RXR policy form).

#### BUSINESS OVERHEAD EXPENSE

Business Overhead Expense Insurance provides dollars to reimburse actual office expenses incurred and paid during a disability.

The policy is considered a cost of doing business and its premiums are deductible. The benefits are received as income and are taxable.

Benefits may be purchased from \$200 a month to \$7,500 a month. Benefits are payable for 18 months. Two waiting periods are available: 15 days and 30 days.

There are 221 physicians on the plan.

#### OSMA ENDORSED WORKER'S COMPENSATION PLAN

A dividend program designed to help physicians reduce the cost of their Worker's Compensation Insurance coverage.

All risks in the plan would have a common policy term of January 1, 1989 through January 1, 1990. Mid-term additions to the plan will have an expiration date of January 1, 1990, and will be eligible participants in the dividend plan on a pro-rata basis. After renewing the short term policy on January 1, 1990, they will then receive a full term policy.

Annual premiums are based on the occupational class and actual income of the employee. The initial premium is based on the estimated payroll. At the end of the policy year, an audit of actual payroll is requested to adjust the premium for the policy year.

A substantial portion of the Worker's Compensation premium may be returned in the form of a dividend. The experience of the entire plan will be evaluated to determine the distribution of dividends up to 25%.

Loss Ratio	Dividend
0-10%	25%
10.1-20%	20%
20.1-30%	15%
30.1-35%	10%
Over 35%	0%

The dividend is computed based upon premium and losses for all risks in the program with each risk receiving the same dividend rate.

As of April 18, 1990:

Policy Count	Written Premium
578	\$ 332,603

Current Loss Ratio is 17.4%

#### ACCIDENTAL DEATH AND DISMEMBERMENT

This program provides benefits from \$25,000 to \$200,000 for accidental loss of life and a portion thereof for accidental loss of limb, eyesight, speech or hearing.

It provides 24 hour protection wherever you go.

There are 128 lives on this program.



Nora White, Tulsa, new president of the OSMA Auxiliary, listens to a speaker at the inaugural banquet.

#### HOSPITAL INDEMNITY

The Hospital Indemnity policy pays a specified amount per day that an insured is a patient in a hospital. This program will pay up to 365 days benefit from \$20.00 to \$200.00 per day. It can include the member, his spouse and family. The policy does not coordinate with any other health insurance you may have, i.e., the money comes directly to you for each day of hospitalization. You could use it to pay a yardman, a housekeeper, babysitter, or to meet your deductible and co-insurance responsibilities under your group health plan. The policy is not underwritten (no health questions). It, however, provides no benefit for the first 24 months of the policy for any health problems treated in the 12 months before the policy's effective date.

Although this product has not enamored itself with the Association, it has taken on new possibilities with the implementation of the PLICO Health inpatient deductible.

For a nominal cost, this program can be used to fund this deductible as well as other expenses associated with hospitalization.

We are currently doing a survey to determine employee interest in a Hospital Indemnity Program.

There are 103 lives on this program.

#### GROUP TERM LIFE

The Oklahoma State Medical Association Group Term Life program offers coverage from \$25,000 to \$300,000

for the physician and his spouse, and from \$25,000 to \$100,000 for the employee of a physician. The Accidental Death benefit is available up to \$100,000 under the Group Term Life program. The Accidental Death and Dismemberment benefit cannot exceed the total life benefit. For example, if a person were to obtain a \$50,000 life policy they would be eligible for up to \$50,000 of AD&D.

Dependent coverage is available at \$12.00 per year for coverage up to \$5,000 for children residing at home under the age of 19. This \$12.00 per year covers all children regardless of how many are in the family.

After a physician has been in the program for one year, he or she is eligible to convert to an Ordinary Life policy through Commercial Life Insurance Company.

There are 318 lives on the program.

## Supplemental Report of the COUNCIL ON MEMBER SERVICES

Subject: Supplemental Annual Report

Presented by: William G. Bernhardt, MD, Chairman

Referred to: Reference Committee III

The council met on April 26th in Tulsa, Oklahoma. The council reviewed the financial statements for the year 1989 as currently audited. The financial reports indicate that the OSMA Member Services Corporation ended with a net income of \$13,272.91 and the OSMA Member Services income from educational seminars and sale of books and tapes is \$12,989. The combined incomes for related and unrelated business income for the Council on Member Services through 12-31-89 is \$26,261.

The council reviewed several proposals to increase the participation in the various seminars and services provided by OSMA. The council approved a list of proposed seminars to be conducted during the Fall of 1990 and Spring of 1991. These will include Medicare coding seminars, Collecting Medical Accounts, New Employee Workshop, Law for the Medical Office, Managing the Medical Office, Loving Trusts, and Financial Planning.

The council voted to review the cost and benefit of a membership survey for the purpose of determining interest and suggestions for OSMA-sponsored services.

William G. Bernhardt, MD, Chairman, expressed appreciation to the council members and especially the work of Lyle Kelsey, OSMA Associate Director, and Ed Kelsay, OSMA General Counsel.



## Report of the OKLAHOMA MEDICAL POLITICAL ACTION COMMITTEE

Subject: **Annual Report**

Presented by: Larry L. Long, MD,  
Chairman

Referred to: Reference Committee III

### Introduction

The Oklahoma Medical Political Action Committee is a voluntary, unincorporated entity made up of individual physicians and spouses interested in helping political candidates become elected to office. OMPAC is an independent and autonomous organization managed by a Board of Directors. The Board of Directors have control over the policies and activities of the Committee and serve without compensation. The OMPAC Board conducts the business of the Committee and otherwise meets several times during an election year to distribute OMPAC funds to candidates.

### Review of Activities

The Oklahoma Medical Political Action Committee has just concluded a very active year. In addition to raising funds, OMPAC co-sponsored, along with the OSMA Auxiliary, one-day Political Education Seminars in Tulsa and Oklahoma City. These seminars afforded participants with hands-on training and information necessary to become more active in the political arena. The programs, put on by AMPAC, are only presented twelve times in off-election years. Oklahoma was given the opportunity to host two of these twelve — breaking participation records at both seminars. OMPAC is planning to host more seminars in the near future.

It is important to reemphasize to the membership the importance of joining OMPAC in 1990. As you know, OMPAC will be making contributions in many political races which will have a direct influence on organized medicine's future. Some of the elections to review will be Governor, Lt. Governor, Attorney General, 101 State House seats, 24 State Senate seats, six Congressional seats and one U.S. Senate seat.

It is OMPAC's intention to represent organized medicine through care-

ful study of the candidates, as well as through input of all OSMA members and spouses.

### Financial/Membership

The OMPAC Financial Report as of April 2, 1990 is:

Total Dollars raised:	\$56,863.79
Less Contributions to AMPAC:	\$ 9,320.00
Sub Total:	\$47,543.79
Less Contributions to Candidates:	\$ 5,900.00
Total Cash On Hand:	\$41,643.79

The OMPAC Membership as of April 2, 1990 is:

Auxiliary Membership:	26
Resident/Student Membership:	7
Regular Membership (\$50):	403
Sustaining Membership (\$100):	23
"200 Club" Membership:	23
Total Membership To Date:	482

### Conclusion

Overall, OMPAC is off to an excellent start as we prepare for the 1990 elections. Auxiliary support has been excellent and we are very appreciative of Camille Harrison, OMPAC Chairman for the Auxiliary.

It should be noted that due to the late mailing of the OMPAC dues statements, the overall membership totals may appear lower than usual. However, membership and funding is arriving daily.

On behalf of OMPAC, I thank you for your support.

Respectfully submitted,  
Larry L. Long, MD, Chairman

## Report of the PHYSICIAN RECOVERY COMMITTEE

Subject: **Annual Report**

Presented by: Ted Clemens, Jr., MD,  
Chairman

J. Darrel Smith, MD, Medical  
Director

Referred to: Reference Committee III

### Introduction

It is the purpose of the Committee to create and maintain an effective statewide non-coercive advocacy program for identifying, contacting, and offering rehabilitative help for physicians suffering from the diseases of alcoholism, chemical dependency or substance abuse.

### Review of Activities

The scope and effectiveness of the Oklahoma State Medical Association continues to grow. A statistical review of the physicians and their specialties who are being assisted by the program is part of this report.

Cocaine has replaced Demoral as the drug of choice for addicted health professionals. Physicians entering the program this year were younger and

### PHYSICIANS' RECOVERY PROGRAM ACTIVITIES SUMMARY Through March 1990

	<u>Total</u>	<u>Current</u>
M.D./D.O.		
Physicians:		
Fam.Med/		
G.P.	65	55
Surgery		
(Inclusive)	31	27
Int.Med.	29	27
Peds.	17	17
Psych.	12	10
OB/Gyn.	12	11
Anes.	10	9
Emer.Med.	9	8
Rad.	7	7
Ophth.	5	3
Path.	4	2
Med.Students	<u>6</u>	<u>4</u>
Total		
M.D./D.O.	207	180 -152 M.D. & 28 D.O.
D.V.M.	12	10
D.D.S.	13	12
Other—P.A.	6	4
Pod.	3	3
Pharm.	3	2
Psychol.	4	3
Dental		
Students	2	0
Other	<u>3</u>	<u>2</u>
Total		
Other	46	36
Total Health		
Care Profes-		
sionals	253	216
Relapsee &		
Retreated	7 = M.D.	3 = D.O.
	M.D./	
	D.O.	Other
Spouse/S.O.	68	13
Treated C.D.	18	
Co-Dep.	3	
		Total
		81

sicker than in the past. The recovery of physicians in isolated rural areas continues to be more difficult than for physicians in urban settings with easier access to support groups.

Among PRC physicians, the recovery rate is 94 percent for those who have attended a long-term care facility. The recovery rate for physicians who receive short-term treatment is only 20 percent.

Another important statistic was discovered this year. A review of PLICO's professional liability claims history since the company's inception shows that 53 physicians who have received assistance from the PRC have had claims against them. Before those physicians became part of the PRC program, they accounted for 108 claims with \$4.5 million paid or in reserve. After those physicians entered the PRC program, they have totalled only 15 claims with \$6,633. paid. These numbers are a clear indication of the cost effectiveness of the PRC program.

More state medical associations

continue to follow the OSMA's lead in staffing their programs with full-time medical directors.

J. Darrell Smith, MD, continues to serve as the program's Medical Director and Mason R. Lyons, MD, continues to serve as Assistant Medical Director for Eastern Oklahoma.

The PRC's relationship with professional societies representing osteopaths, veterinarians, dentists, physician assistants, nurses and psychologists remains strong.

The PRC continues to enjoy a productive, cooperative relationship with the Oklahoma Board of Medical Licensure and Supervision.

The PRC will continue to serve as an advocate for physicians suffering from chemical or alcohol dependency or substance abuse.

Budget Request: \$112,500.00

Respectfully submitted,

Ted Clemens, Jr., MD, OKC,  
Chairman

J. Darrel Smith, MD, Norman,  
Medical Director

Mason Lyons, MD, Tulsa, Asst.  
Medical Director

Homer V. Archer, MD, OKC

Ted J. Brickner, Jr., MD, Tulsa

John C. Chelf, MD, Enid

Donald L. Cooper, MD, Stillwater

Marcus L. Cox, MD, OKC

Carl F. Critchfield, MD, Muskogee

Frank Crowe, MD, Fairview

Gordon H. Deckert, MD, OKC

David V. Eakin, MD, Tulsa

Robert G. Ellis, MD, Tulsa

James D. Gormley, MD, OKC

Donald C. Karns, MD, Enid

Thomas S. Llewellyn, MD, Tulsa

George C. Moore, MD, Ponca City

James R. Rhymer, MD, Clinton

Charles J. Shaw, MD, Moore

Harold Thiessen, MD, Mustang

V. William Wood, MD, Tulsa

M. Michael Sulzycki, OSMA Staff

**It is within the AMA that we can work out our differences collegially and present a united front to Washington and industry. The AMA will carry our standard, but we must support it with all that we have. Never, ever forget, we are the AMA.**

—Perry A. Lambird, MD  
President, OSMA



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*AMA delegates, PLICO board named*

## OSMA House of Delegates elects new officers at OKC meeting

President Perry A. Lambird, MD, an Oklahoma City pathologist, heads the slate of 1990-91 officers of the Oklahoma State Medical Association (OSMA).

Also elected at the association's Annual Meeting, held May 3-5 at the Marriott Hotel in Oklahoma City, were Billy Dale Dotter, MD, Okeene family physician, president-elect, and Michael J. Haugh, MD, Tulsa neurologist, vice-president. James D. Funnell, MD, Oklahoma City obstetrician-gynecologist, will continue as secretary-treasurer.

Sara R. DePersio, MD, a preventive medicine specialist in Oklahoma City, will chair the OSMA Board of Trustees, the first woman to do so. Muskogee surgeon Jay A. Gregory, MD, will serve as vice-chair.

Elected as Oklahoma delegates to the American Medical Association (AMA) were M. Joe Crosthwait, MD, Midwest City family physician; John R. Alexander, MD, Tulsa internist; and Dr Lambird.

The new alternate delegates to the AMA are Stil-

well surgeon Burdge F. Green, MD; Clarence Robinson, Jr., MD, a surgeon in Oklahoma City; and Dr Dotter.

Reelected to the Board of Directors of the Physicians Liability Insurance Company (PLICO) were C. Alton Brown, MD, Oklahoma City internist; C. S. Lewis, Jr., MD, Tulsa internist; John A. McIntyre, MD, Enid internist; Tim K. Smalley, MD, Stillwater internist; Kenneth W. Whittington, MD, Bethany family physician; and Dr Dotter.

New officers for the OSMA Auxiliary are Nora White (Robert), Tulsa, president; Susan Paddock (Gary), Ada, president-elect; Judy Critchfield (Carl), Muskogee, first vice-president; and Ellen Metz (Allan), Oklahoma City, second vice-president. Also serving will be Chris Zollinger (William), Tulsa, recording secretary; Karen Mask (Dennis), Edmond, treasurer; and Nancy Burton (Vaud), Ardmore, treasurer-elect. □

## PLICO appreciates AM News story explaining claims-made policies

The Physicians Liability Insurance Company (PLICO) in recent years has made a concerted effort to warn Oklahoma physicians about the hazards of claims-made policies for professional liability.

With state doctors facing a continuing onslaught of solicitations offering this type of insurance coverage, PLICO officials were pleased to see an article in *American Medical News* which addressed the situation.

AMN staff writer Howard Larkin, in a May 4 story headlined "Cost of tail coverage often double that of liability policy," confirmed much of what PLICO has been saying.

The following excerpt is reprinted with the permission of AMN:

Thinking about moving to another state? Costs of tail liability coverage could be as much as double that of your annual liability premium.

Average premiums for current liability coverage were \$12,000 in 1988. While average premiums for tail coverage ran to twice that amount, many tail premiums are much higher than \$24,000, according to an AMA survey of liability insurers.

Physicians in high-risk specialties in high-rate states can pay as much as \$400,000 for tail policies said Bradford P. Cohn, M.D., president of the Physicians Insurers Assn. of America (PIAA) and chairman of San Francisco-based Medical Insurance Exchange of California. . . .

Many physicians — particularly young physicians — are still unaware that most professional liability policies cover only claims made while the policy is in force, and require a tail policy to maintain coverage when current liability coverage is terminated. Physicians will need to buy tail coverage if they switch insurers, or if they move to another state where their insurer does not write policies. . . .

"We had a group of residents in here not long ago to tell them about claims-made policies," said Donald Fager, president of Manhattan-based Medical Liability Mutual Insurance of New York. "They were kind of stunned to find out that if they decided they didn't like it here they would have to pay this big tail policy to leave."

(continued)

# We Understand Commitment

We understand your personal commitment to offer the best medical care available to those you serve. Many long years of preparation, education, working hours and attentiveness have been invested, so you deserve to be served by folks who make the same professional commitments in their field as you in your own.

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## Claims-made policies *(continued)*

It is a situation that "leaves physicians with a dilemma," said Dr. Cohn. "Either you pay or you stay put." . . .

Finding tail coverage isn't a problem; affordability is, said Douglass Phillips, president of Raleigh-based Medical Mutual Insurance Co. of North Carolina. "The doctor who is transferring his or her practice is usually moving into a slightly lower financial situation," because it takes time to establish a practice. . . .

PLICO-insured physicians have occurrence-type coverage and do not need to purchase tail coverage if they move out of the state; their PLICO policy will continue to cover them for activities that took place in Oklahoma. J

## Preventive education

### ***K-12 health programs endorsed by OSMA House of Delegates***

"Growing Healthy" and similar programs of comprehensive health education for school children in grades K through 12 won the endorsement of the Oklahoma State Medical Association's House of Delegates in May.

In adopting Substitute Resolution 22, the delegates put their stamp of approval on a concept that gives children the skills and information needed to live healthy, productive lives.

One example of such programs, Growing Healthy, covers all aspects of health from growth and development to drug use and community health. It views health education as a vital part of a child's total education.

The Growing Healthy curriculum has been introduced in 40 public and private school districts in Oklahoma and has trained more than 250 teachers in the last three years. To date the program has been implemented in Bristow, Dickson, Jenks, McAlester, Muskogee, Norman, Pawhuska, Prague, Red Oak, Stillwater, and Tulsa.

Nationwide, more than 600,000 children have been reached by Growing Healthy programs. The programs run throughout the school year, with teachers training in special summer sessions. The next training session in Oklahoma will be in Tulsa the week of August 6th.

Information on Growing Healthy is available from Blair Brockman, Health Project Chairman, at (918) 744-0338. J





**It's the law.** Governor Henry Bellmon signs House Bill 1963, a measure which addresses prescription drug abuse and diversion. The new law will allow the Oklahoma Bureau of Narcotics and Dangerous Drugs (OBND) to use computer technology to track Schedule II prescription medications. HB 1963 is an alternative to a "multiple" prescription method of tracking Schedule II drugs. The bill resulted from the cooperation of Oklahoma professional societies, licensing boards, and law enforcement agents.

Pictured behind Governor Bellmon are (l to r) Rep. John D. Lassiter (D-Moore); Elaine Dodd, chief agent in compliance, OBND; Otie Ann Fried, OSMA director of state legislation; David Bickham, OSMA executive director; Bob Jones, executive director, Oklahoma Osteopathic Association; Rep. Gary Bastin (D-Del City), the bill's author; and Bryan Potter, executive director, Oklahoma State Board of Pharmacy.

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Regarding patients' records

## State Supreme Court rules on doctor-attorney communication

A decision handed down by the Oklahoma Supreme Court on April 17, 1990, has clarified when and how a physician may communicate with an attorney who requests information about a patient or former patient who is a plaintiff in a lawsuit.

The court said that in medical malpractice cases the physician is free to confer privately and informally (*ex parte* communication) with either or both the defendant health care provider's attorney and the patient's attorney about the patient's care; he is not prohibited from doing so by reason of any physician-patient privilege. However, if he prefers, he may limit his communication with either or both attorneys to formal depositions only.

If the physician wants to confer with the patient's attorney, he may require the presence of the defendant's attorney, and also his own. He may charge for professional time given in conferences and for making copies of the patient's records.

The patient's attorney is entitled to a copy of the

patient's medical records if he has proper authorization from the patient. The defense attorney also is entitled to copies of the patient's records, but does not have to provide patient authorization or a court order; a file-stamped copy of the petition or complaint filed by the patient is sufficient.

In cases *other* than medical malpractice, a physician may communicate with the defendant's attorney only through a formal deposition. Informal communication with the patient's attorney is permitted if the physician so desires and the patient has authorized it.

In such cases, both the patient's attorney and the defendant's attorney are entitled to copies of the patient's records upon presentation of appropriate patient authorization.

The Supreme Court's decision, which consolidated two cases — *Seaburg v The Honorable Robert E. Caldwell* and *Linthicum v District Court of LeFlore County* — was unanimous. □

# How FAR Would You Go To SAVE A LIFE?

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## OSDH targets cardiovascular risk reduction via private employers



The proposed *Year 2000 Health Objectives for the Nation* state that by the year 2000, there should be an increase of at least 90% in the proportion of people age 18 and older who have had their blood pressure mea-

sured by a health professional or other trained observer within the previous two years and can state whether their current blood pressure is within normal limits or elevated. The health objectives also suggest that there be an increase of at least 90% in the proportion of people age 18 and older who have had their blood cholesterol checked within the previous five years and at least 75% should be able to report their cholesterol level.

For the past decade, the Oklahoma State Department of Health (OSDH), with consultation from physicians in the private sector, has developed cardiovascular messages to influence awareness and personal perception of cardiovascular disease risk factors. These messages have been targeted along a continuum of health concepts, including awareness, prevention, control, and quality of life. The OSDH believes that these messages have motivated patients to seek care and are responsible, at least in part, for reducing heart disease and stroke death rates in Oklahoma by 25% and 30%, respectively.

To take these messages even further, the OSDH Chronic Disease Service and Health Education and Information Service have established partnerships with business and industry in the state to provide health promotion activities at the worksite. Employees are offered health risk appraisal, blood pressure and cholesterol measurement, and heart health and heart risk factor education. Those businesses which

**Table 1. Mean Blood Cholesterol Levels by Age, Cohorts, Sex and Compares Year 1 and 2 to National Means**

Age Cohorts	Men			Women		
	Year 1	Year 2	National	Year 1	Year 2	National
20-24	158	158	165	182	175	170
25-29	183	180	180	175	175	175
30-34	218	200	190	185	178	175
35-39	198	198	200	202	182	185
40-44	215	200	205	204	198	195
45-49	187	192	215	212	202	205
50-54	220	202	215	225	204	220
55 and older	206	201	215	217	214	230

**Table 2. Mean Percentage of Population Screened for Blood Pressure by Categories on Diastolic Reading**

Reading	Category	Year 1	Year 2
Below 85mgHg	Normal Blood Pressure	79.1%	81.2%
85-89mgHg	High Normal Blood Pressure	17.4%	17.2%
90-104mgHg	Mild Hypertension	3.2%	1.6%
105-114mgHg	Moderate Hypertension	0.3%	—
115mgHg or above	Severe Hypertension	—	—

have received the intervention have been evaluated to determine if an outcome of behavior change has occurred. The following discussion reviews the results over a two-year period, 1988-1989.

The same individuals were seen both Year 1 and Year 2 for basic measurements and educational sessions, and resources were provided to the employer to follow up on the initial educational sessions. The mean blood cholesterol level for Year 1 was 201.3 mg/dl with a range of 112 mg/dl to 357 mg/dl. The mean cholesterol level for Year 2 was 189.9 mg/dl with a range of 115 mg/dl to 280 mg/dl. For both years the mean blood cholesterol level was below the national mean of 216 mg/dl. The mean blood pressure level for Year 1 was 130/78 and the mean blood pressure level for Year 2 was 128/74.

The participating worksites have actively promoted positive life-style changes through various employee-driven health promotion activities. At present there is no data available to support reduced insurance claims, but all businesses noted less absenteeism and fewer sick days.

**Oklahoma AIDS Information Line  
(800) 522-9054**

**National AIDS Clearinghouse  
(800) 458-5231**

**Mixed Blessings: Intensive Care for Newborns** by Jeanne Harley Guillemain and Lynda Lytle Holmstrom. New York: Oxford University Press, 1986. Pp 317, \$26.00.

This book concerns newborn intensive care and all of its complexities. The preface states, "Anyone entering a maximum care unit for newborns cannot help but be struck by the complexity of hospital organization and the sophistication of hospital technology. These modern forms, however, should not blind us to the universal drama surrounding human reproduction. . . . Our good fortune is that in our time and society so many newborns survive to become adults."

This book analyzes the organization of neonatal intensive care units, the professionals who work there, and the larger hospital or medical center of which they are a part. The two authors are professors of sociology from Boston College. They use the approach of sociologists to describe their findings and recommendations. Most of the description is concerned with an academic teaching center, "Northeast Pediatric." They describe first the professional workers in the neonatal intensive care unit — physicians,

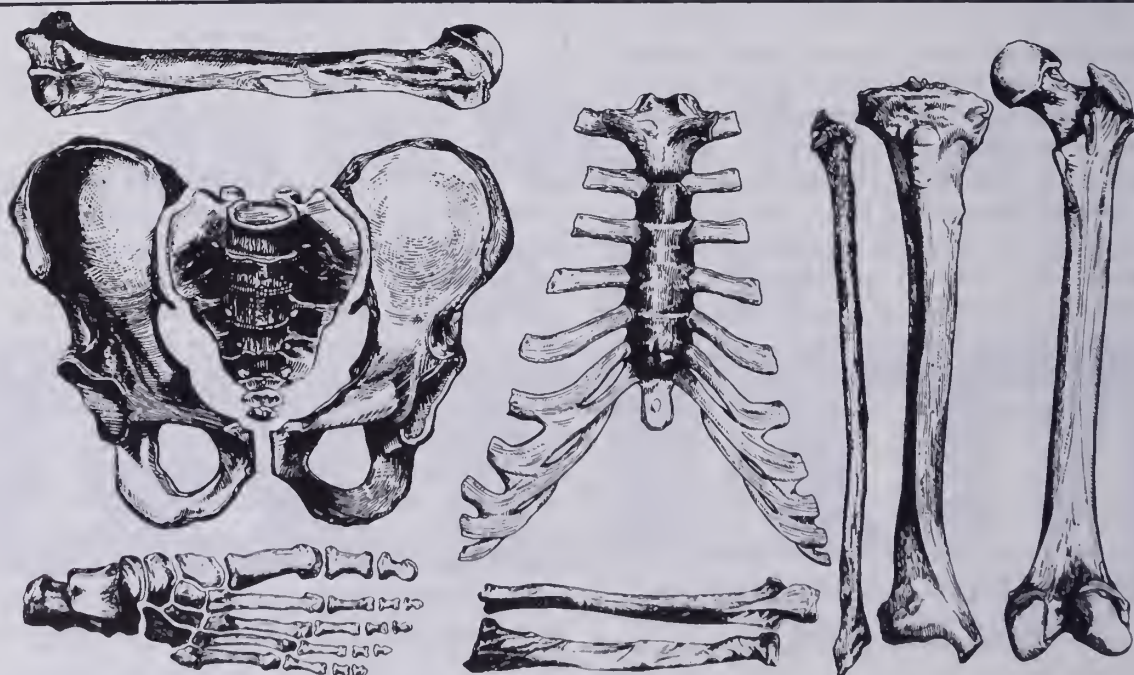
nurses, social-psychological professionals. They use quotations from representatives of each of these groups to illustrate the problems and decisions which must be made in the day-to-day care of such patients. The second major category of the book is entitled "Clinical Decisions in the Patient's Career." In this section the source of patient referrals, the sanctity of newborn life versus aggressive intervention, and what happens to patients in neonatal intensive care units are covered in detail.

The needs of parents are given thorough evaluation. Generally speaking, the authors believe that intensive care nurseries are overly technical and frequently unresponsive to parents and families.

A chapter entitled "Newborn Intensive Care in the United States" provides a comparison of "Northeast Pediatric" with fourteen other intensive care nurseries in the United States and, in another chapter, to those in England, the Netherlands, and Brazil.

The book concludes with several carefully considered policy recommendations.

Overall, the authors have done a reliable job in transmitting the reality of the day-to-day atmo-



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sphere of the neonatal intensive care unit. One of the strengths of the book is its perspective, from an outside source, on the decision-making process in neonatal units. The authors' most heated criticism is directed at overzealous care of infants weighing less than 750 gm.

All professionals with a stake in maximum care of the newborn will find this book interesting.

—Harris D. Riley, Jr., MD  
Oklahoma City

## IN MEMORIAM

### 1989

Ruben Hilton Mayberry, MD	April 20
Norman Eugene Dearnbarger, MD	May 6
Gordon Kent Jimerson, MD	May 6
Orville McClure Woodson, MD	May 11
Robert Sears Davis, Jr., MD	May 13
James Richard Riggall, MD	May 30
Howard Choice Martin, MD	July 23
D. Evelyn Miller, MD	July 30
Nevin Wilson Dodd, MD	July 31
Alwyn Travers Kornblee, MD	August 7
Edward Keats Norfleet, MD	August 13
Wayman Jackson Thompson, MD	September 20
Rheba L. Huff Edwards, MD	September 30
George Harry Garrison, MD	October 5
Monroe Ruework Jennings, MD	October 27
Edmund Gordon Ferguson, MD	November 17
Don Lee Dycus, MD	December 6
Sylvester Robert Shaver, MD	December 16
Charles Edwards Leonard, MD	December 27

### 1990

John Justice Batchelor, MD	January 8
Fred W. Sellers, MD	January 11
Dewey Lee Mathews, MD	January 18
Powell Everett Fry, MD	January 28
Alpha Louis Johnson, MD	February 3
Marshall W. Oppen, MD	February 12
Vincel Sundgren, MD	March 1
Glen Smith Kreger, MD	March 25
Martin James Fitzpatrick, MD	March 27
David Charles Lowry, MD	March 30
Robert Alan Johnston, MD	April 9
Hervey Adolph Foerster, MD	April 15
Paul E. Kaldahl, MD	May 4
Homer Vincent Archer, MD	May 8

### Homer Vincent Archer, MD 1919 - 1990

OSMA Life Member Homer V. Archer, MD, Oklahoma City, died May 8, 1990. Dr Archer, a 1943 graduate of the University of Oklahoma School of Medicine, began his anesthesiology and family medicine practice in Oklahoma City in 1947; he retired in 1980. Dr Archer served on active duty with the US Army during World War II, attaining the rank of Captain.

### Paul E. Kaldahl, MD 1935 - 1990

Paul E. Kaldahl, MD, Oklahoma City pathologist, died May 4, 1990. Dr Kaldahl was a native of Wolbach, Neb. A 1960 graduate of the University of Oklahoma College of Medicine, he established his medical practice in Oklahoma City in 1966. His practice was interrupted by a two-year tour of duty with the US Army from 1967 to 1969. Dr Kaldahl was a director of the Medical Arts Laboratory in Oklahoma City and served as president of the Oklahoma State Association of Pathologists. □

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## CLASSIFIEDS

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Classified ads are \$25 each up to 50 words, plus 50 cents for each additional word. A word is one or more characters bounded by spaces. Box numbers will be assigned upon request and add 6 words to the total. Ads will not be accepted on the telephone.

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### Physicians Wanted

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**INTERNAL MEDICINE BC/BE Oklahoma metropolitan** hospital seeks two generalists with many skills (outpatient to ICU), must be ACLS certified. Experience in alcohol/drug treatment, Rehabilitation Medicine and CME useful, limited night/week-end call. Excellent opportunity in a progressive community. Submit CV to Journal Box 39, c/o OSMA.

(continued)

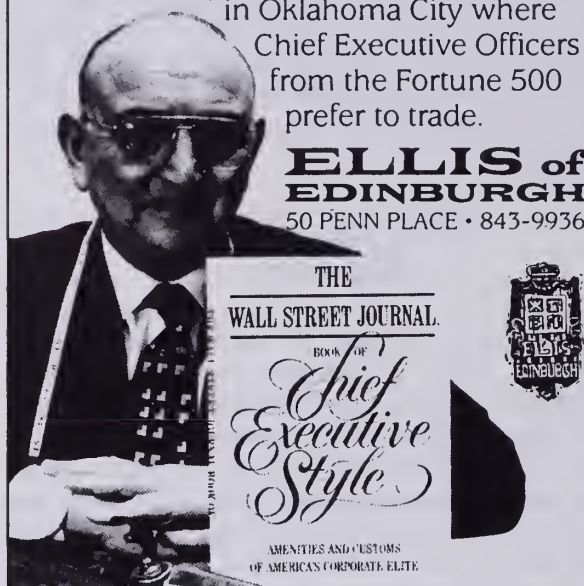
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**Developmental pediatrician to work with children with chronic illness and handicapping conditions.** Staff now consists of neurologist, rehabilitation and developmental pediatrician and psychiatrists. Salary and fringe benefits are competitive. Clinical academic appointment is available. Located in attractive southwest city. Contact James Coldwell, MD, Box 35648, Tulsa, OK 74153, 918-664-6600.

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## OSMA Physician Recovery Program

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## Physicians Wanted (continued)

**URGENT CARE CENTER POSITION.** New Urgent Care Center adjacent to Oklahoma Memorial Hospital Emergency Department has opening for primary care physician. Hours 11:00 AM to 7:00 PM Monday through Friday. Salaried position, competitive reimbursement, includes supervision of emergency medicine residents. CONTACT: Steven Barrett, M.D., Section of Emergency Medicine, P.O. Box 26307, Oklahoma City, OK 73126.

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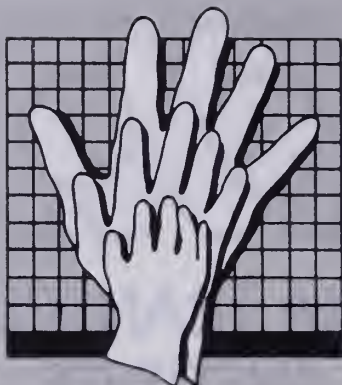
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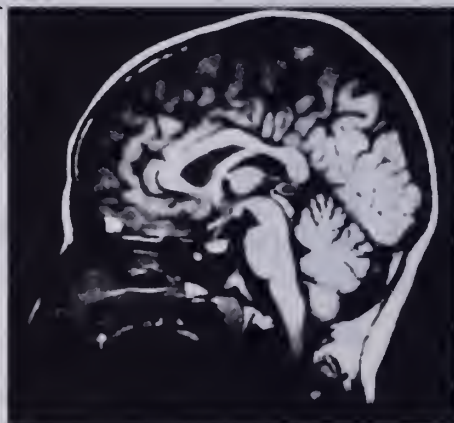
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Illustrations other than the author's will not be accepted for publication unless accompanied by written permission from the original source. Illustrations should be labeled with the author's name and must be numbered in the order in which they are referred to in the article. The quality of all illustrations must be in keeping with the quality of the magazine.

### Reprints

Authors will receive reprint order forms from the Transcript Press, 222 East Eufaula, Norman, Oklahoma 73069, prior to publication of their articles. Other requests for reprints must be made to the Transcript Press within 30 days after publication.

### News

Readers are encouraged to submit news items of interest to Oklahoma physicians. Where dates of meetings, etc., are important, please remember that each issue closes on the first day of the *preceding* month and reaches subscribers in the latter half of the month of publication.

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■ **This year's A.H. Robins Award for Community Service** goes to Virgil Dale Matthews, MD, Muskogee. Dr Matthews has been a family physician in Muskogee, where it is estimated he has delivered some 5,000 babies over the last 40 years. He also has served on the Muskogee City Council and established the Muskogee Public School Education Foundation. Dr Jay A. Gregory, also of Muskogee and vice-chairman of the OSMA Board of Trustees, presented the award during the OSMA Annual Meeting in Oklahoma City in May. Assisting was A.H. Robins Representative Gary Jones. The Robins award winner is named annually by the OSMA Board of Trustees.

■ **The Donald J. Blair Friend of Medicine Award** for 1990 was presented in May to Oklahoma City businessman and civic leader Lee Allen Smith. Smith was recognized for his work to prevent blindness and to promote the Children's Miracle Network. The award was presented by James B. Pitts, MD, OSMA past president, at the Annual Meeting of the OSMA House of Delegates in Oklahoma City. It is named in memory of Don Blair, OSMA executive director in the 1970s.

■ **Ron O. Gilcher, MD, director of the Oklahoma Blood Institute** in Oklahoma City, says the institute will be adding two new tests this year. The first test, which will detect whether a donor has been infected with the hepatitis C virus, has been licensed by the Food and Drug Administration (FDA). The hepatitis C virus, believed to be the cause of most non-A, non-B hepatitis, accounts for some 95% of all hepatitis cases caused by blood transfusions. The second test, to come later in the year, will check for HIV-2. The test has not previously been employed in the United States because until recently there had been no reported cases of HIV-2 in this country. Dr Gilcher notes that while the new tests will add to blood processing fees, the institute is dedicated to doing whatever is necessary to provide the highest quality blood products.

■ **The University of Oklahoma College of Medicine Alumni Association** has named its officers for 1990-91. Heading the slate is President Gary F. Strebel, MD, Oklahoma City obstetrician-gynecologist. Serving with him are Jone Kendrick, MD, Idabel general practitioner, vice-president; Richard L. Winters, MD, Poteau family practitioner, secretary; and Norman K. Imes, MD, Oklahoma City internist, treasurer. Charles T. Wolohon, MD, Bartlesville, an internist, is the immediate past president.

■ **The Oklahoma Society of Internal Medicine; American College of Physicians, Oklahoma Chapter; and Oklahoma Society of Clinical Oncology** will hold their annual joint meetings this year September 13-15. The event will be at Fountainhead Resort on Lake Eufaula in eastern Oklahoma.

■ **Charles P. Wilkinson, MD, Oklahoma City ophthalmologist**, has been appointed chairman of the US Food and Drug Administration's Ophthalmic Devices Panel. The panel reviews applications for eye care instruments and products such as intraocular lenses, contact lenses and disinfectants, and lasers. Dr Wilkinson has served on the panel since 1986.

■ **A kit of educational materials for health care professionals** is now available from the National Heart, Lung and Blood Institute. The kit contains materials for educating consumers about cardiovascular disease. Included are more than 30 reproducible brochures and fact sheets on topics such as cholesterol, nutrition, and high blood pressure; a guide to help with patient adherence to diet, medication, or smoking cessation regimens; and a listing of free or low-cost materials on related topics. The NHLBI Kit '90 is available for \$5 from the Heart, Lung and Blood Institute, 4733 Bethesda Ave., Suite 530, Bethesda, MD 20814-4820, or by calling (301) 951-3260. □



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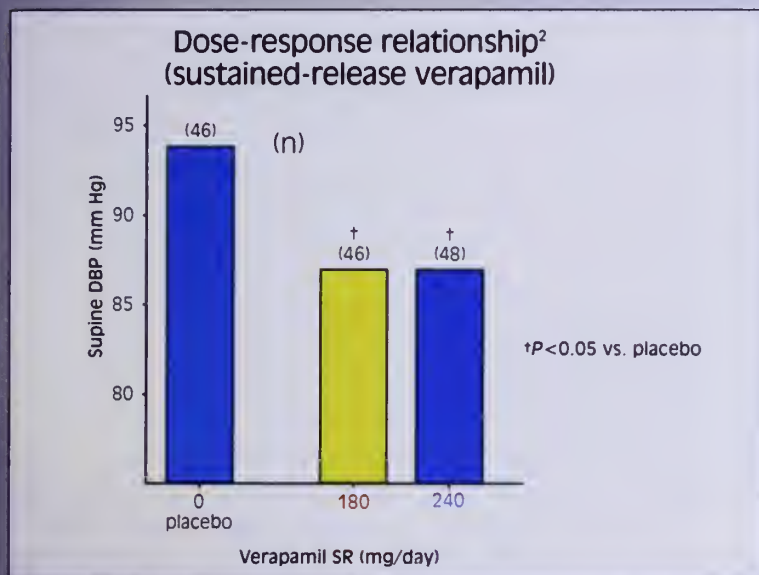
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### BRIEF SUMMARY

**Contraindications:** Severe LV dysfunction (see *Warnings*), hypotension (systolic pressure < 90 mm Hg) or cardiogenic shock, sick sinus syndrome (if no pacemaker is present), 2nd- or 3rd-degree AV block (if no pacemaker is present), atrial flutter/fibrillation with an accessory bypass tract (eg, WPW or LGL syndromes), hypersensitivity to verapamil.

**Warnings:** Verapamil should be avoided in patients with severe LV dysfunction (eg, ejection fraction < 30%) or moderate to severe symptoms of cardiac failure and in patients with any degree of ventricular dysfunction if they are receiving a beta-blocker. Control milder heart failure with optimum digitalization and/or diuretics before Calan SR is used. Verapamil may occasionally produce hypotension. Elevations of liver enzymes have been reported. Several cases have been demonstrated to be produced by verapamil. Periodic monitoring of liver function in patients on verapamil is prudent. Some patients with paroxysmal and/or chronic atrial flutter/fibrillation and an accessory AV pathway (eg, WPW or LGL syndromes) have developed an increased antegrade conduction across the accessory pathway bypassing the AV node, producing a very rapid ventricular response or ventricular fibrillation after receiving I.V. verapamil (or digitalis). Because of this risk, oral verapamil is contraindicated in such patients. AV block may occur (2nd- and 3rd-degree, 0.8%). Development of marked 1st-degree block or progression to 2nd- or 3rd-degree block requires reduction in dosage or, rarely, discontinuation and institution of appropriate therapy. Sinus bradycardia, 2nd-degree AV block, sinus arrest, pulmonary edema and/or severe hypotension were seen in some critically ill patients with hypertrophic cardiomyopathy who were treated with verapamil.

**Precautions:** Verapamil should be given cautiously to patients with impaired hepatic function (in severe dysfunction use about 30% of the normal dose) or impaired renal function, and patients should be monitored for abnormal prolongation of the PR interval or other signs of overdosage. Verapamil may decrease neuromuscular transmission in patients with Duchenne's muscular dystrophy and may prolong recovery from the neuromuscular blocking agent vecuronium. It may be necessary to decrease verapamil dosage in patients with attenuated neuromuscular transmission. Combined therapy with beta-adrenergic blockers and verapamil may result in additive negative effects on heart rate, atrioventricular conduction and/or cardiac contractility; there have been reports of excessive bradycardia and AV block, including complete heart block. The risks of such combined therapy may outweigh the benefits. The combination should be used only with caution and close monitoring. Decreased metoprolol clearance may occur with combined use. Chronic verapamil treatment can increase serum digoxin levels by 50% to 75% during the first week of therapy, which can result in digitalis toxicity. In patients with hepatic cirrhosis, verapamil may reduce total body clearance and extrarenal clearance of digitoxin. The digoxin dose should be reduced when verapamil is given, and the patient carefully monitored. Verapamil will usually have an additive effect in patients receiving blood-pressure-lowering agents. Disopyramide should not be given within 48 hours before or 24 hours after verapamil administration.

Concomitant use of flecainide and verapamil may have additive effects on myocardial contractility, AV conduction, and repolarization. Combined verapamil and quinidine therapy in patients with hypertrophic cardiomyopathy should be avoided, since significant hypotension may result. Concomitant use of lithium and verapamil may result in a lowering of serum lithium levels and increased sensitivity to lithium. Patients receiving both drugs must be monitored carefully. Verapamil may increase carbamazepine concentrations during combined use. Rifampin may reduce verapamil bioavailability. Phenobarbital may increase verapamil clearance. Verapamil may increase serum levels of cyclosporin. Concomitant use of inhalation anesthetics and calcium antagonists needs careful titration to avoid excessive cardiovascular depression. Verapamil may potentiate the activity of neuromuscular blocking agents (curare-like and depolarizing); dosage reduction may be required. Adequate animal carcinogenicity studies have not been performed. One study in rats did not suggest a tumorigenic potential, and verapamil was not mutagenic in the Ames test. Pregnancy Category C. There are no adequate and well-controlled studies in pregnant women. This drug should be used during pregnancy, labor, and delivery only if clearly needed. Verapamil is excreted in breast milk; therefore, nursing should be discontinued during verapamil use.

**Adverse Reactions:** Constipation (7.3%), dizziness (3.3%), nausea (2.7%), hypotension (2.2%), headache (2.2%), edema (1.9%), CHF, pulmonary edema (1.8%), fatigue (1.7%), dyspnea (1.7%), bradycardia: HR < 50/min (1.4%), AV block: total 1°, 2°, 3° (1.2%), 2° and 3° (0.8%), flushing (0.6%), elevated liver enzymes. The following reactions, reported in 1.0% or less of patients, occurred under conditions where a causal relationship is uncertain: palpitations, atrioventricular dissociation, chest pain, claudication, myocardial infarction, palpitations, purpura (vasculitis), syncope, diarrhea, dry mouth, gastrointestinal distress, gingival hyperplasia, ecchymosis or bruising, cerebrovascular accident, confusion, equilibrium disorders, inositol muscle cramps, paresthesia, psychotic symptoms, shakiness, somnolence, arthralgia and exanthema, hair loss, hyperkeratosis, macules, sweating, urticaria, Stevens-Johnson syndrome, erythema multiforme, blurred vision, gynecomastia, increased urination, spotty menstruation, impotence.

### References:

- 1988 Joint National Committee: The 1988 report of the Joint National Committee on Detection, Evaluation, and Treatment of High Blood Pressure. *Arch Intern Med* 1988;148:1023-1038.
- Data on file, G.D. Searle & Co.

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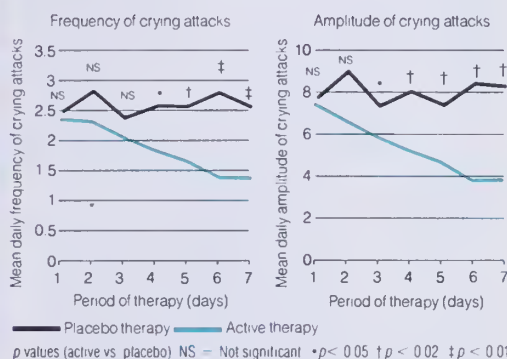
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#### References

1. USP DI Update, September/October 1988, p 120.
2. Br J Clin Pharmacol 1985;20: 710-713
3. Data on file, Lilly Research Laboratories
4. Scand J Gastroenterol 1987;22(suppl 136): 61-70
5. Am J Gastroenterol 1989;84: 769-774

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**Brief Summary.** Consult the package literature for complete information.

**Indications and Usage:** 1. *Active duodenal ulcer*—for up to eight weeks of treatment. Most patients heal within four weeks.

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**Contraindication:** Known hypersensitivity to the drug. Use with caution in patients with hypersensitivity to other H<sub>2</sub>-receptor antagonists.

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2. Dosage should be reduced in patients with moderate to severe renal insufficiency.

3. In patients with normal renal function and uncomplicated hepatic dysfunction, the disposition of nizatidine is similar to that in normal subjects.

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**Drug Interactions**—No interactions have been observed with theophylline, chloridazepoxide, lorazepam, lidocaine, phenytoin, and warfarin. Axid does not inhibit the cytochrome P-450 enzyme system, therefore, drug interactions mediated by inhibition of hepatic metabolism are not expected to occur. In patients given very high doses (3,900 mg) of aspirin daily, increased serum salicylate levels were seen when nizatidine, 150 mg b.i.d., was administered concurrently.

**Carcinogenesis, Mutagenesis, Impairment of Fertility**—A two-year oral carcinogenicity study in rats with doses as high as 500 mg/kg/day (about 80 times the recommended daily therapeutic dose) showed no evidence of a carcinogenic effect. There was a dose-related increase in the density of enterochromaffin-like (ECL) cells in the gastric oxyntic mucosa. In a two-year study in mice, there was no evidence of a carcinogenic effect in male mice, although hyperplastic nodules of the liver were increased in the high-dose males as compared with placebo. Female mice given the high dose of Axid (2,000 mg/kg/day, about 330 times the human dose) showed marginally statistically significant increases in hepatic carcinoma and hepatic nodular hyperplasia with no numerical increase seen in any of the other dose groups. The rate of hepatic carcinoma in the high-dose animals was within the historical control limits seen for the strain of mice used. The female mice were given a dose larger than the maximum tolerated dose, as indicated by excessive (30%) weight decrement as compared with concurrent controls and evidence of mild liver injury (transaminase elevations). The occurrence of a marginal finding at high dose only in animals given

an excessive and somewhat hepatotoxic dose, with no evidence of a carcinogenic effect in rats, male mice, and female mice (given up to 360 mg/kg/day, about 60 times the human dose), and a negative mutagenicity battery are not considered evidence of a carcinogenic potential for Axid.

Axid was not mutagenic in a battery of tests performed to evaluate its potential genetic toxicity, including bacterial mutation tests, unscheduled DNA synthesis, sister chromatid exchange, mouse lymphoma assay, chromosome aberration tests, and a micronucleus test.

In a two-generation, perinatal and postnatal fertility study in rats, doses of nizatidine up to 650 mg/kg/day produced no adverse effects on the reproductive performance of parental animals or their progeny.

**Pregnancy—Teratogenic Effects—Pregnancy Category C**—Oral reproduction studies in rats at doses up to 300 times the human dose and in Dutch Belted rabbits at doses up to 55 times the human dose revealed no evidence of impaired fertility or teratogenic effect; but, at a dose equivalent to 300 times the human dose, treated rabbits had abortions, decreased number of live fetuses, and depressed fetal weights. On intravenous administration to pregnant New Zealand White rabbits, nizatidine at 20 mg/kg produced cardiac enlargement, coarctation of the aortic arch, and cutaneous edema in one fetus, and at 50 mg/kg, it produced ventricular anomaly, distended abdomen, spina bifida, hydrocephaly, and enlarged heart in one fetus. There are, however, no adequate and well-controlled studies in pregnant women. It is also not known whether nizatidine can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Nizatidine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

**Nursing Mothers**—Studies in lactating women have shown that 0.1% of an oral dose is secreted in human milk in proportion to plasma concentrations. Because of growth depression in pups reared by treated lactating rats, a decision should be made whether to discontinue nursing or the drug, taking into account the importance of the drug to the mother.

**Pediatric Use**—Safety and effectiveness in children have not been established.

**Use in Elderly Patients**—Healing rates in elderly patients were similar to those in younger age groups as were the rates of adverse events and laboratory test abnormalities. Age alone may not be an important factor in the disposition of nizatidine. Elderly patients may have reduced renal function.

**Adverse Reactions:** Clinical trials of varying durations included almost 5,000 patients. Among the more common adverse events in domestic placebo-controlled trials of over 1,900 nizatidine patients and over 1,300 on placebo, sweating (1% vs 0.2%), urticaria (0.5% vs <0.01%), and somnolence (2.4% vs 1.3%) were significantly more common with nizatidine. It was not possible to determine whether a variety of less common events was due to the drug.

**Hepatic**—Hepatocellular injury (elevated liver enzyme tests or alkaline phosphatase) possibly or probably related to nizatidine occurred in some patients. In some cases, there was marked elevation (>500 IU/L) in SGOT or SGPT and, in a single instance, SGPT was >2,000 IU/L. The incidence of elevated liver enzymes overall and elevations of up to three times the upper limit of normal, however, did not significantly differ from that in placebo patients. Hepatitis and jaundice have been reported. All abnormalities were reversible after discontinuation of Axid.

**Cardiovascular**—In clinical pharmacology studies, short episodes of asymptomatic ventricular tachycardia occurred in two individuals administered Axid and in three untreated subjects.

**CNS**—Rare cases of reversible mental confusion have been reported.

**Endocrine**—Clinical pharmacology studies and controlled clinical trials showed no evidence of antiandrogenic activity due to nizatidine. Impotence and decreased libido were reported with equal frequency by patients on nizatidine and those on placebo. Gynecomastia has been reported rarely.

**Hematologic**—Fatal thrombocytopenia was reported in a patient treated with nizatidine and another H<sub>2</sub>-receptor antagonist. This patient had previously experienced thrombocytopenia while taking other drugs. Rare cases of thrombocytopenic purpura have been reported.

**Integumental**—Sweating and urticaria were reported significantly more frequently in nizatidine- than in placebo-treated patients. Rash and exfoliative dermatitis were also reported.

**Hypersensitivity**—As with other H<sub>2</sub>-receptor antagonists, rare cases of anaphylaxis following nizatidine administration have been reported. Because cross-sensitivity among this class has been observed, H<sub>2</sub>-receptor antagonists should not be administered to those with a history of hypersensitivity to these agents. Rare episodes of hypersensitivity reactions (eg, bronchospasm, laryngeal edema, rash, and eosinophilia) have been reported.

**Other**—Hyperuricemia unassociated with gout or nephrolithiasis was reported. Eosinophilia, fever, and nausea related to nizatidine have been reported.

**Overdosage:** Overdoses of Axid have been reported rarely. If overdosage occurs, activated charcoal, emesis, or lavage should be considered along with clinical monitoring and supportive therapy. Renal dialysis for four to six hours increased plasma clearance by approximately 84%.

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JOURNAL (ISSN 0030-1876) (USPS 285-000) is the official publication of the Oklahoma State Medical Association and is published monthly under the direction of the OSMA Board of Trustees at 601 Northwest Expressway, Oklahoma City, OK 73118. Second class postage paid at Oklahoma City, OK 73125. POSTMASTER: Send address changes to JOURNAL, c/o Oklahoma State Medical Association, 601 Northwest Expressway, Oklahoma City, OK 73118.

Subscription to the JOURNAL is included in membership dues. All other subscriptions are \$30 per year. Single issues are \$3 per copy, prepaid, subject to availability.

National advertising representative: State Medical Journal Advertising Bureau, Inc., 711 South Boulevard, Oak Park, IL 60302, phone (708) 383-8000.

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# JOURNAL

OKLAHOMA STATE MEDICAL ASSOCIATION

AUGUST 1990

VOL. 83, NO. 8

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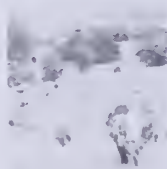
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## ON THE COVER



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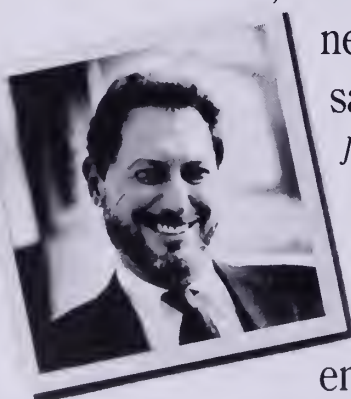
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## **CON on PRO**

Several passionate tirades put forth during the last Annual Meeting of the Oklahoma State Medical Association made clear that the actions of the Peer Review Organization (PRO) still cause distress and anger in many OSMA members. The government promise that "the good doctor that writes up the chart will have nothing to fear from the PRO" has not been fulfilled. Rather, an increasing number of good physicians fear the PRO system, and react with irritation and anger to the PRO process in action. Many physicians characterize the system as "harassment."

From their beginning, the PROs were mandated to use a flawed system, and an obdurate bureaucracy demanded the reviewers use it without change. The many years of use have not eliminated the system's flaws, nor the gall.

Traditional peer review evolved as a medical science educational tool, and the government mandate to use it for fiscal purpose perverted it into a chart search for substandard practitioners. Now the PRO must charge hundreds of "good" physicians with error in order to flush out one "bad" doctor.

Retrospective chart review is a poor tool to detect physician underperformance, and is quite insensitive to patient outcome and to patient satisfaction. Clerical omissions often trigger presumptions of clinical errors. To be valid, medical judgments must be reviewed by similar physicians, and all too often this is not done in a PRO. Only a small group of OSMA physicians are PRO reviewers, and the scant list of reviewers increases the possibility of misdirected review. A medical laboratory test of such low sensitivity and poor specificity would never be accepted by physicians, nor approved by government.

Chart review is labor intensive and subjectively

judgmental, and the agreement between reviewers is less than desirable. Thus, punitive action against a physician often generates resentment, as many physicians have scant confidence in the ability of another physician to evaluate quality of care solely on retrospective chart review.

The PRO system so readily lends itself to practitioner harassment that considerable credit must be given to those Oklahoma physicians who have worked to keep it operational over these past years. A distinguished cadre of our member physicians has devoted a great deal of time and energy to keeping an unsound system from totally disrupting medical practice.

Physician apologists for PRO say "it's better if we do it ourselves" than let the government do it to us. But it seems to me that thought reveals a Titanic desperation, and signals the frame of mind of a hopeless suicide just before the final oblivion. Possibly a healthier attitude would be to require the bureaucrats to operate the system and then organize our OSMA physician PRO experts as a defense team. That stance would concede that the PRO is an adversary system against physicians, and that OSMA physicians need a better defense. As things are now, a questioned chart costs the OSMA member many stressful hours to defend it from speculative charges, and patient care is inhibited.

It is time to reconsider the relationship of Oklahoma physicians to the Peer Review Organization.

*Ray V. McIntyre, M.D.*

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## The American Adolph

Have you ever wondered why PROs can be so maddeningly difficult when their boards of directors are comprised of outstanding practicing physicians? Have you thought it strange that the years-long practice of groups of physicians owning laboratories is now abusive and illegal? Were you concerned when Medicare could sanction you out of the program without ever having a day in court? Are you amazed that Congress is considering seven-year limited licensure for physicians?

There is a reason — one with two legs.

In defining our nation, James Madison made clear that abuses of government power were to be limited by separating the legislative, executive, and judicial branches. While it was respected, this system served us well.

Then came Watergate. With great fanfare Congress created "Inspectors General" in all federal departments. In what I still believe to be a blatant violation of our Constitution, however, these august agents were to have independent budget authority from Congress, total independence from the President (who cannot fire them), and essentially total freedom to wreak havoc on the administration.

Viewing the debacles at HUD (Housing and Urban Development), Defense, and elsewhere, we may assume that most of the Inspectors General emulated Danny Kaye and indulged themselves in the perquisites of the office without taking themselves very seriously. Alas for us, such was not always the case.

Enshrined in HHS (Health and Human Services) as its Inspector General is one Richard Kusserow. His background is not in health but in police work. He "purified" Chicago. And he came to his job with great VISION — eliminate the 10% of doctors he KNOWS are crooks.

Lamentably, the IG (as he is known in HCFA)



meets and speaks well. He has a ready smile, a facile charm, is a good conversationalist at the dinner table, and is dynamite when testifying before Congress. Like all the great con artists in history, he is personable and believable. And he has conned Congress, the administration, and the media.

At the start of the PRO program, HCFA contracted out independent review of individual PROs to a "Super Pro" in San Francisco. This interesting cast of characters included a host of nurse "reviewers" previously trained in pernicious and pernicious HMOs serving employed, healthy, urban people and a group of Bay Area doctors. They reviewed charts in the blind, using their HMO (not peer) criteria, never communicating with attending physicians, and, SURPRISE, found that all 50 PROs in the country were allowing improper admissions and poor medical care. While Tom Morford (chief of the Health Standards and Quality Bureau) was the principal actor this charade was tolerable. Then the IG got interested.

Good old Dick Kusserow wanted sanctions. The Super Pro results were EVIDENCE that doctors were crooked and shoddy. So the IG instituted a bounty system for his staff — the more sanctions, the higher the personal rating for promotions and pay. And doctors were sanctioned. The only trouble was that when the doctors finally got to court, the IG's sanctions were usually tossed out. But the IG got a lot of good headlines and told Congress that doctors simply had too much due process. They let rapists off, too, you know.

Since the IG couldn't get the PRO program to incarcerate everyone, he decided to take on enforcement of the various (poorly written) Medicare fraud and abuse statutes. Proposed regulations published in March of 1990 would include:

- (a) right of entry to any physician's office without warrant or warning to inspect every piece of paper within;
- (b) automatic sanctioning of physicians out of the Medicare program if incorrect informa-

(continued)

tion was given by the physician to the IG  
EVEN IF GIVEN MISTAKENLY AND IN  
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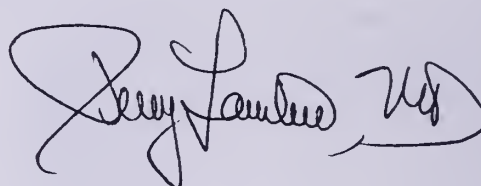
- (c) sanctioning of physicians if they happen to charge Medicare-insured patients "substantially" more than "other" patients — all of the critical words conveniently undefined;
- (d) mitigation of penalties if accused physicians would name other physicians whom the IG could investigate.

The list is long.

One commentator on these proposed rules called them neo-fascist. One can understand why — unwarranted search and seizure of private property, conviction of undefined crimes without criminal intent, an

internal spy system (the Kusserow SS?), and other paraphernalia and procedures common 50 years ago in central Europe. As the Oklahoma State Medical Association commented formally, the proposed regulations "would not withstand constitutional scrutiny."

We have a problem. America has a problem. The time has come for us to write our Congressmen and insist that the HHS IG be replaced. It's either that or learn the words to "Kusserow über alles."



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# Ophthalmic Changes During Normal and Toxemic Pregnancy

Ann A. Warn, MD; Thomas E. Acers, MD

Ophthalmic changes, often forgotten when considering pregnancy, can be quite predictive of maternal and fetal outcome in cases of preeclampsia and eclampsia.

## Systemic Effects of Pregnancy

Pregnancy affects almost every system of the body. While the effects on the reproductive system are the most obvious, there are noted changes in others as well. Metabolically, the pregnant patient is at a higher risk for diabetes, with increased levels of estrogen, progesterone, and cortisone. In addition, she is also in a state of mild respiratory alkalosis and metabolic acidosis. Hematologically, there is an increase in blood volume to 45% above baseline with a 33% increase in erythrocytes. Cardiovascular changes include an increase of cardiac output, resting pulse rate, lower extremity venous pressure, and cutaneous blood flow, and a decrease of arterial blood pressure and vascular resistance. The immunological system is in a relatively suppressed state that may be due to increased serum progesterone, hydrocortisone, alpha-fetoprotein, and trophoblast-specific antigen. There is also a decrease in the number of T-helper lymphocytes, which returns to normal three to five months postpartum.<sup>1</sup>

One of the systems that is often overlooked when considering the changes of pregnancy is the ophthalmic system. Physiologic changes of the eye during pregnancy affect intraocular pressure, corneal sen-

sitivity and rigidity, the visual field, and various other aspects. Changes in the eye also can be seen that are unique to states of preeclampsia/eclampsia, which at times can be predictive of fetal and maternal outcome.

## Intraocular Pressure in Normal Pregnancy

One of the physiologic changes that occurs is in intraocular pressure. This is usually measured with either a Schiottz tonometer or a Goldman applanation tonometer. The Schiottz tonometer measures the corneal indentation pulse when a standard weight, usually 5.5 g, exerts pressure perpendicularly to the surface of the cornea.<sup>2</sup> This reading is then checked on a table that matches corneal indentation pulse to the appropriate intraocular pressure. A Schiottz tonometer reading between four and eight will be in the normal intraocular pressure range of 10 to 20 mmHg. Applanation tonometry measures the pressure necessary to flatten a 3.06 mm area of corneal surface. A slit lamp microscope is used for magnification in this process.<sup>3</sup> Ocular rigidity also can be calculated using the Schiottz or applanation tonometer.<sup>4</sup>

It has generally been concluded that there is a decrease in intraocular pressure during pregnancy, shown by a decrease in the corneal indentation pulse amplitude. The studies reviewed compared a group of pregnant women to a group of nonpregnant women. Measures were taken so the groups would be similar in other aspects such as age distribution, socioeconomic status, state of health, and the time of day the patients were examined.

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In a 1972 study by Howen and Gjonnaess, the average corneal indentation pulse amplitude was 31.3 microns and average intraocular pressure was 13.9 mmHg in the nonpregnant group; corresponding values were 10.8 microns and 11.0 mmHg respectively in the pregnant group (between 38 and 40 weeks gestation). These differences were significant at the 0.1% level. Eight of the 25 in the pregnant group had intraocular pressures below 10 mmHg. This was seen in only one of the 25 nonpregnant subjects.<sup>5</sup>

A similar study was done in 1974 by the same authors; however, in that study they looked at women in the second half of pregnancy and up to six months postpartum. Findings were similar to those in the first study; in addition, the authors found that there was still a statistically significant decrease in intraocular pressure two months postpartum. This study also showed a statistically significant decrease in corneal rigidity between weeks 10 and 30 of pregnancy and in some postpartum subjects. It was postulated that the decrease in rigidity may have been due to the change of elasticity of ligaments and connective tissue that occurs during pregnancy. However, it was not believed that the decrease in rigidity was nearly enough to account for the decrease in intraocular pressure.<sup>4</sup>

Although there is no proven cause for the decrease in intraocular pressure, several etiologies have been postulated. Of the cardiovascular theories, one possible explanation is overcompensation for the increase of cardiac output, pulse pressure, and pulse rate found in pregnancy. Some studies have reported a decrease in ophthalmic artery pressure, while others have found it to be normal or increased. There also could be a shift to nonpulsatile intraocular blood flow, where the amount of blood entering the eye may be the same during systole and diastole, therefore abolishing the usual systolic increase of intraocular pressure. There is a proven increase in lower extremity venous pressure during pregnancy, with a concurrent decrease in upper extremity venous pressure, and it is postulated that this could be accentuated in the head.<sup>5</sup>

A study by Horven, Gjonnaess, and Kroese stated that corneal indentation pulse reflects the pulse-synchronous alteration of intraocular pressure that is dependent on the amount of extra blood entering the eye during systole. They found that even though there was an increase in pulse pressure and pulse rate during pregnancy, there was a decrease of volume per minute after the twentieth week of gesta-

tion. They believed this decrease was due to a decrease in peripheral resistance and decreased pressure in the episcleral veins.<sup>6</sup>

Wilke found episcleral venous pressure to be lower in pregnant patients, and he thought it was a likely cause of decreased intraocular pressure. He measured venous pressure by directing a stream of air at a vessel to see at which air pressure it collapsed.<sup>7</sup>

Not all studies support an increase in intraocular pressure. A study out of India reported an increase of intraocular pressure during pregnancy, as measured by Schiotz tonometry. The authors attributed

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***In this study, the corneal sensitivity decreased as pregnancy progressed, becoming significant only between 31 and 40 weeks of pregnancy.***

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this increase to a higher cardiac output and blood volume.<sup>8</sup>

There also have been some hormonal theories to explain a decrease in intraocular pressure. Some of the hormones studied include relaxin, human chorionic gonadotropin, and progesterone. It was found that when 20 mg of relaxin was injected intramuscularly in both men and women, intraocular pressure went down, and there was increased facility of outflow of aqueous humor. Similar results were obtained by injecting menopausal glaucoma patients with 10,000 units of human chorionic gonadotropin for five days.

Progesterone increases facility to outflow and decreases intraocular pressure when administered systemically, topically, or orally. This effect is greater in postmenopausal patients. Also, there is the decrease in intraocular pressure found in the progestational phase of the menstrual cycle.<sup>9</sup>

A study by Phillips and Gore found that there was no significant difference between the intraocular pressures of third-trimester normotensive women and third-trimester hypertensive patients, and both had pressures significantly lower than normal. They attributed this effect to progesterone and/or relaxin.<sup>10</sup>



## Corneal Changes in Normal Pregnancy

Another ophthalmic change during pregnancy is that of decreased corneal sensitivity. Using a Cochet-Bonnet aesthesiometer, which measures corneal touch thresholds by exerting pressure on the cornea with a nylon monofilament, corneal sensitivity was tested in 29 women at various times during pregnancy and then again six to eight weeks postpartum. It was found that there was an increase in the corneal touch threshold and therefore a decrease in corneal sensitivity. In this study, the corneal sensitivity decreased as pregnancy progressed, becoming significant only between 31 and 40 weeks of pregnancy. It also was found that the greatest decreases in sensitivity were found in subjects who were overweight, and more of these subjects reported slight swelling of their fingers and ankles. This seemed to support the theory that decreased sensitivity was due to increased corneal thickness secondary to edema. However, when corneal thickness was measured with a Haag-Streit slit lamp 900 and pachometer, the amount of corneal edema did not seem related to the amount of decrease in corneal sensitivity.<sup>11</sup>

A similar study on corneal sensitivity used a Draeger electromagnetic aesthesiometer, which is reportedly more accurate and reproducible. This study found that there was a significant decrease in corneal sensitivity throughout pregnancy instead of just in the 31-to-40-week range, and it did not show a progressive decrease as pregnancy continued. It also did not show a correlation between decreased corneal sensitivity and weight gain, edema, or mean arterial pressure. It was theorized that the decrease in sensitivity may have been due to decreased intraocular pressure or circulatory changes in the eye.<sup>12</sup> Corneal sensitivity returned to normal by six to eight weeks postpartum.<sup>11</sup>

Loss of corneal sensitivity is not the reason that some women have difficulty wearing their contact lenses during pregnancy. This could be due to topographical changes of the cornea secondary to edema, or it may be caused by a change in the composition of tears. A viscous component of tears, lysozyme, is more abundantly secreted in states of generalized edema, and patients often complain of their contact lenses being greasy.<sup>11</sup>

There has been a slight increase in the incidence of Krukenberg spindles in pregnant patients. This is defined as a central vertical band of posterior cornea melanin pigmentation, and it is sometimes involved in pigmentary glaucoma. A study which looked at 100 pregnant women found three cases of bilateral

Krukenberg spindles. There were no cases found in a control group of 120 nonpregnant females. All of the affected patients had intraocular pressures in the low normal range. Krukenberg spindles had disappeared in one patient when she was examined two days postpartum, and another affected patient showed decrease pigment but still had a spindle pattern approximately two months after the initial examination.

The etiology of Krukenberg spindles is thought to be hormonal because 62% of nonpregnant persons affected are female. It is also theorized that the clearance of pigment later in pregnancy may be due to progesterone or relaxin. Progesterone has been shown to facilitate outflow through the trabecular meshwork in both men and women. Relaxin can cause increased outflow by polymerizing collagen ground substance in the trabecular meshwork and Schlem canal, increasing their rigidity.<sup>13</sup>

## Ophthalmic Vasculature in Pregnancy

Vascular changes of the retina and conjunctiva occur as pregnancy progresses. During the first 20 weeks the arteriolar flow is rapid, venules are full, and conjunctival capillaries are easily visualized. The rate of blood flow progressively decreases, and the venules appear granular when observed. This appearance is directly related to the rate of blood flow, and it also may be due to an increase in serum globulin and decrease in albumin.

As term approaches, the conjunctival capillaries become less observable until they may not be seen without using a microscope. This ischemic pattern may worsen until the capillary bed is absent, especially in cases of preeclampsia or eclampsia. Normal pregnancy does not affect the tortuosity of capillaries. Mild conjunctival arteriolar spasm may exist in 20% of normal pregnancies in the last trimester, during labor, and a few days postpartum. However, arteriolar spasm is more common in toxemic states.<sup>14</sup>

## Visual Field Changes in Pregnancy

One of the earliest studied ophthalmic changes during pregnancy is the change in visual fields. Most of these studies were done before 1935, with some variable results. Some of the lack of concurrence between these studies has been attributed to lack of uniformity in testing methods. It also has been noted that none of the patients had subjective complaints of visual changes, and changes were found only upon visual field evaluation.<sup>1</sup>

A 1922 study of 31 pregnant women found that 22 of them had bitemporal contraction of the visual

field. The defect was attributed to pressure being put on the optic chiasm by the pituitary gland, which reportedly increases to two to three times its normal weight and volume during pregnancy.<sup>15</sup> Another study also found a high incidence of bitemporal contraction of the visual field, which returned to normal within two weeks postpartum in all but 2 of 51 cases.<sup>16</sup> Pressure from the pituitary on the optic chiasm is controversial because some studies have found that it does not get large enough to cause chiasm compression. However, the pituitary may compress optic blood vessels, causing a localized ischemia.

Other possible etiologies that have been suggested are hormonal disturbances and endocrine insufficiency causing reduced retinal vitality.<sup>17</sup>

Not all reports agree that the visual field change is one of bitemporal hemianopsia. Some authors have found that pregnancy is related to concentric contraction of form and color fields and an enlargement of the blind spot. These changes were attributed to decreased retinal vitality secondary to endocrine abnormalities.<sup>18</sup>

Some studies do not agree that there is an increased incidence of any type of visual field change. Of 81 patients in one study, only 2 had a slightly significant visual field change. One had bitemporal field contraction, and the other had temporal contraction of the right side. The author of this study also did not believe that pituitary hypertrophy was enough to cause any of the bitemporal hemianopsia that had been previously reported.<sup>19</sup>

It is controversial as to whether any of the proposed visual field defects could be considered pathologic since none of the patients had visual complaints.

### Visual Changes in Toxemic Pregnancy

Toxemia of pregnancy is diagnosed when a patient has a triad of hypertension, edema, and proteinuria. This also is called preeclampsia; the diagnosis advances to eclampsia if convulsions or coma occur. There is a progression of ophthalmic abnormalities that coincides with the progression of mild preeclampsia to more severe cases involving convulsions or fetal demise. Some of these ophthalmic signs can be quite prognostic, and they are generally attributed to central arteriolar spasm, ischemia, or edema.<sup>20</sup>

Visual changes ranging from blurring to blindness can accompany cases of mild preeclampsia. When a preeclamptic patient experiences scotoma, diplopia, and dimness of vision, it is considered a prodrome of eclampsia. Various studies have found

that the visual changes exist in 30% to 50% of all eclamptic patients. It is theorized that the etiology of these visual symptoms is circulatory changes in the visual cortex.

Amaurosis is another symptom that usually exists in eclampsia, but it also may exist in preeclampsia. The incidence of amaurosis is 1% to 3% of all eclamptic patients. The patient may become blind for only a few hours, or it may last several weeks. Although this symptom is very alarming to patients, it is not a reason to terminate pregnancy, and vision usually returns to normal within a week. At one time, amaurosis was thought to be due to psychogenic causes. However, now it is believed to be caused by either a peripheral lesion secondary to severe edema and retinal detachment or a central lesion of the optic nerve or occipital lobe.<sup>21</sup>

Visual disturbances are also prodromal of late postpartum eclampsia, where convulsions occur more than 48 hours after delivery in a preeclamptic patient. A study was done on 132 eclamptic women, and it was found that 36 of these patients became eclamptic postpartum. Seventeen of these 36 patients became eclamptic more than 48 hours postpartum. Before experiencing convulsions, all 17 patients reported headaches and visual abnormalities, such as blurring or scotomas, lasting for one to three days. The predictive value of these signs in preeclampsia seems quite significant.<sup>22</sup>

### Ophthalmic Fundus Changes in Toxemic Pregnancy

Retinal and conjunctival vasculature also are affected by toxemia of pregnancy. The first ophthalmic sign of toxemia is constriction of the retinal arteries. This may involve a single or multiple constrictions of one or all branches of the retinal artery, and the location of constriction may vary with time. The ratio of vein to artery diameter, which is normally 3:2, may get as high as 6:1. The earliest arteriolar narrowing usually occurs on the nasal side of the retina, and it usually occurs with a slight increase in diastolic pressure.<sup>21</sup> Similar arteriolar narrowing occurs in the conjunctiva. These vessels become extremely thinned out due to severe constriction, and areas of spasm may be missed on examination secondary to incomplete filling. The conjunctiva may be totally blanched except for a rare venule in cases of eclampsia. The conjunctival capillary beds may become quite tortuous in these patients.<sup>14</sup>

The appearance of arteriolar constriction of the retina and/or conjunctiva can be predictive of mater-



nal and fetal outcome. If severe local and generalized retinal arteriolar spasm is present with albuminuria and severe hypertension, intrauterine fetal demise can be anticipated in approximately three weeks. If retinal or conjunctival arteriolar spasm is present in a preeclamptic or eclamptic patient and there is a sudden decrease in narrowing, it generally indicates an early fetal death.<sup>14</sup>

When the arteriolar narrowing increases despite medical treatment for toxemia, many authors recommend termination of pregnancy. This is to prevent permanent vascular damage to the patient, since vascular changes of the eye represent vascular changes

*The toxemic patients most likely to experience retinitis are the young primiparas and the older multiparas.*

in other organ systems. Inducing labor in this situation may save the lives of both the mother and the baby.<sup>21</sup>

Fundus changes of the eye are not limited to arteriolar narrowing, although most of the other changes are secondary to this constriction process. Other findings include retinal edema, hemorrhage, and exudates such as cotton wool spots or star-shaped exudates.

Edema includes papilledema and retinal edema, which is usually seen in the upper or lower pole of the disc and follows the retinal vessels. Hemorrhage and exudate can be an ominous sign. The hemorrhages are often flame-shaped and occur in the posterior fundus, near a vessel, in the superficial nerve fiber layer. Exudates follow a similar distribution, and when these two occur together it is termed retinitis.

Retinitis is usually seen in the last trimester. If it is present earlier, it will probably progress to a more severe form. The toxemic patients most likely to experience retinitis are the young primiparas and the older multiparas. Mild retinitis generally regresses with the termination of pregnancy, but in cases of severe retinitis, 80% will have residual lesions. The older multipara group has a higher inci-

dence of permanent retinal damage. Many authors believe that retinal hemorrhages and cotton wool spots indicate possible permanent vascular damage, and that pregnancy should be terminated.

One study found that when retinitis is discovered before the twenty-eighth week and pregnancy is continued for four or more weeks, almost all the women will have permanent vascular-renal disease and only 25% will have living babies.<sup>21</sup> If retinal hemorrhages alone are found, studies have indicated a 33% fetal demise rate. Hemorrhages and exudates together in toxemic pregnancy are associated with a fetal demise rate of up to 75%. Some believe that the finding of significant retinitis at any time during acute or chronically hypertensive toxemic pregnancy is an indication for pregnancy termination because of the high fetal mortality and probable vascular damage to the mother.<sup>14</sup>

Although it is rare, another recognized ophthalmic complication of preeclampsia or eclampsia is retinal detachment. These are bullous or nonhegagenous retinal detachments caused by leakage of serous fluid.<sup>3</sup> They occur in only 1.2% of preeclamptic patients and in 10.4% of eclamptic patients.

There have been several theories on what causes this form of retinal detachment. Some have postulated that it is an extension of generalized or cerebral edema. Others have thought that it is due to vascular damage to retinal vessels, such as acute necrosis of the vessel walls.<sup>22</sup>

More recent studies have used fluorescein angiography to show leakage of dye from choroidal vessels and delayed filling of choriocapillaries. The serous choroidal fluid builds up between the choroid and retinal layers, causing the bullous retinal detachment.<sup>24</sup> There is evidence to suggest that the leakage from the choroid vessels is due to fibrinoid necrosis of the vessel wall. The visual prognosis is good, and the detachments tend to regress on their own. However, permanent visual loss can occur with detachments of long standing. Although ophthalmic examination is recommended in cases of toxemia, it should be kept in mind that the fluorescein dye for angiography is toxic to the fetus, and that too much photic stimulation may cause a preeclamptic patient to have convulsions.<sup>25</sup>

**Conclusion**

Ophthalmic examination during normal pregnancy can be done as a baseline and to follow the normal physiologic changes. If the patient begins to develop toxemic symptoms, ophthalmic examination is

highly recommended. The arteriolar-venule network can be readily observed in the retina for signs of arteriolar constriction, hemorrhage, and exudate. This is important for evaluation of maternal vision, and it is also representative of what is happening in other organ systems such as the kidney, where the vasculature is not as readily observed. The eye ground changes in toxemia also can be good predictors of maternal and fetal outcome, and they should be followed closely.



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## Coming next month

Manuscripts being prepared for publication next month include a report on cardiorespiratory support devices in patients undergoing heart and heart-lung transplantation, and a paper on human growth hormone and Creutzfeldt-Jakob disease. Also scheduled is another tongue-in-cheek commentary by Dr William P. Truels.



# Dementia and Alzheimer's Disease: Resources in Oklahoma

Richard W. Leech, MD; Judy Carella, MA, MPH; Gary D. Miner, PhD; Roger A. Brumback, MD

Senile dementia and Alzheimer's disease (often considered a single process) rank as the fourth most common cause of death in the United States and outrank in cost to the nation the three leading causes of death combined. Autopsy studies of patients with the clinical diagnosis of dementia have clearly shown that a wide variety of pathological conditions can produce clinically similar symptomatology. In order to address the many possible causes and treatments of these various forms of dementia, the Alzheimer's Association (formerly known as the Alzheimer's Disease and Related Disorders Association), the Oklahoma Autopsy Assistance Network at the Oklahoma Medical Research Foundation, and The Alzheimer's Foundation (also known as the Familial Alzheimer's Disease Research Foundation) have begun a concerted effort to develop a regional network which can aid patients and their relatives in the diagnosis and management of dementia. Awareness of these organizations by all physicians will help in the development and dissemination of the newer and more specific treatments to patients (and their relatives) with Alzheimer's disease and other forms of dementia in Oklahoma.

Senile dementia and Alzheimer's disease, often considered a single process, may rank as the fourth or fifth most common cause of death in the

United States.<sup>1</sup> Unfortunately, the diagnosis is difficult, and as many as 20% or more of patients with clinical dementia may have a pathologic process other than Alzheimer's disease at death.<sup>2</sup> The exact prevalence of Alzheimer's disease is unknown, and even in those patients with pathologic evidence of Alzheimer's disease, only recently have reasonable criteria become available for the pathologic confirmation of this disorder.<sup>3</sup> Alzheimer's disease may be heterogeneous, both clinically and genetically; recent evidence indicates that a much larger proportion of Alzheimer's disease than previously thought has a genetic predisposition.<sup>4</sup>

Pathologic examination is the only reliable method for assuring accurate diagnosis. During the past year, pathological findings in brains coming to the Department of Pathology at the University of Oklahoma Health Sciences Center for confirmation of Alzheimer's disease have clearly highlighted the many difficulties still confronting the clinician who must care for the demented patient. For instance, we have found Alzheimer's disease where Creutzfeldt-Jakob disease was suspected — much to the relief of the many health care providers involved. Conversely, we have diagnosed Creutzfeldt-Jakob disease where Alzheimer's disease was the clinical diagnosis. Other pathologic diagnoses, in "clinical Alzheimer's disease," have included multiple systems degeneration, vascular disease, Binswanger's disease, and Gerstmann-Sträussler-Scheinker disease, a disorder which may be familial. For the reasons stated above, we have previously emphasized the need for careful

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and thoughtful examination of the demented patient, followed by pathologic confirmation.<sup>5</sup>

In order to address the many possible causes and treatments of dementia, the Alzheimer's Association (formerly known as the Alzheimer's Disease and Related Disorders Association), the Oklahoma Autopsy Assistance Network at the Oklahoma Medical Research Foundation, and The Alzheimer's Foundation (also known as the Familial Alzheimer's Disease Research Foundation) have begun a concerted effort to develop a regional network which can aid the patients and their relatives in the diagnoses and management of these diverse disorders resulting in dementia.

### Support Organizations

Several organizations in Oklahoma facilitate the study of dementing disorders. These organizations have been developed to respond to the needs of families with a member affected by Alzheimer's disease, but as we have shown, pathological confirmation often results in unexpected diagnoses.

**The Alzheimer's Association**, started in the late 1970s by Bobby Glaze of Bloomington, Minn, has grown from a single chapter into a national organization with headquarters in Chicago (telephone number 312-853-3060) and chapters in every state, including two in Oklahoma (Oklahoma City and Tulsa). The Alzheimer's Association is the leading organization devoted to public awareness, family support groups, and the promotion of federal legislation to aid in research and care giving. The Autopsy Assistance Network was established by the Alzheimer's Association to help families secure an autopsy to verify the diagnosis of Alzheimer's disease, to provide material for research into the underlying mechanisms of the disease, and to establish the diagnosis for purposes of clinical and epidemiological studies.

In Oklahoma, the **Autopsy Assistance Network** is coordinated through the Oklahoma Medical Research Foundation in Oklahoma City (telephone 405-271-7480). Autopsies must be prearranged through the Network representative who also (1) provides the families with information about the autopsy and support and guidance in making the arrangements; (2) maintains a contact point for the physicians providing clinical care to the patients, nursing home personnel, local pathologists who perform the autopsies, and others (such as funeral directors) who will be involved at the time of death; and (3) coordinates the specimen handling between the neuropathologists evaluating the brain tissue for diagnos-

tic purposes and the researchers using the tissue for investigative purposes.

More recently **The Alzheimer's Foundation**, headquartered in Tulsa (telephone 918-631-3665) but both regional and worldwide in scope, has been established to encourage research and facilitate scientific interchange of ideas. It sponsored the First International Symposium on Familial Alzheimer's Disease in Tulsa in October 1987, which coincided with the discovery of markers on chromosome 21 for possible genes involved in this disorder — the FAD gene and the amyloid gene. The Second International Symposium was held in Seattle in May 1989, with the third scheduled for Heidelberg, Germany, in October 1991.

The Alzheimer's Foundation was responsible for the publication of two important books during 1989: one, oriented to the research scientist, neurologist, gerontologist, and other medical specialists, reports ground-breaking molecular genetic studies and clinical applications, and is the first book to provide a comprehensive examination of familial aspects of Alzheimer's disease;<sup>4</sup> the second book is a compassionate and practical handbook for families, friends, and healthcare professionals.<sup>6</sup> In conjunction with the University of Oklahoma Health Sciences Center and the Oklahoma Medical Research Foundation, the Alzheimer's Foundation has also recently facilitated the groundwork to create an Oklahoma-Regional Alzheimer's Disease Research Network, which includes institutions from Arkansas, Kansas, Missouri, and Oklahoma. In addition, the Oklahoma Veterans Affairs Medical Center, through its affiliation with the University of Oklahoma College of Medicine, has developed a proposal for a possible future Alzheimer's disease longitudinal study center. These programs would provide the most up-to-date diagnostic approaches for patients with dementia and also provide aid to their physicians. We believe that such collaborative efforts are the wave of the future within the neurosciences and herald a new day for many mentally crippled individuals.

Experimental drug trials lasting two years and involving centrally acting cholinergic agents for Alzheimer's disease were started in Tulsa in September 1988; it is anticipated that new trials involving other agents will begin in 1990 and future years. Residents of Oklahoma who are in the early stages of Alzheimer's disease are eligible for these drug trials if they can satisfy the strict inclusion and exclusion criteria.\*

\*Physicians interested in recommending patients for these or future trials should contact The Alzheimer's Foundation (918-631-3665).



Aside from such experimental drug trials, there is no treatment or cure. Supportive care is the only approach available to the physician.

It has been estimated by the National Institute on Aging that for every \$1.00 spent on Alzheimer's disease, less than 1¢ is spent on research.<sup>7</sup> It is apparent that a much greater effort is needed to bring research on Alzheimer's disease into line with efforts in other disorders. For Oklahoma this means it is essential to develop good clinical and neuropathological diagnostic services and a cooperative research network that pulls together the strengths of various institutions and individuals in this state.

The above support organizations are major resources and referral centers for patients, family members, and physicians. The **Department of Pathology of the University of Oklahoma College of Medicine** with its neuropathologists serves all physicians and pathologists in Oklahoma by providing the final pathologic confirmation of dementia and its many causes. Recent state legislative enactment of HB 2000 provides encouragement for this endeavor. All brains removed at autopsy in patients with dementia which have been referred through one of the above support organizations have been examined utilizing the best available sampling and staining techniques for the confirmation of Alzheimer's disease. As noted earlier, this has resulted in some unusual diagnoses and some surprises. In each case, the family has benefited from such an effort, and unexplained treatment or unusual clinical findings have been clarified. Furthermore, access to critical patient material has allowed members of the Department of Pathology to develop new techniques to further quantify the pathologic processes present in dementia.<sup>8-10</sup>

## Summary

Several support organizations exist in the state of

Oklahoma that serve patient, family, and physician. Knowledge of these organizations is essential to the development of new and more specific treatment for Alzheimer's disease. Furthermore, confirmation of the diagnosis of dementia, other than Alzheimer's disease, is critical to such efforts. To that point, all the support organizations and faculty members of the College of Medicine are dedicated to the understanding, diagnosis, and treatment of dementia. □

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# Rural Physician Survey

John A. Hanley

In August 1989, the Physician Manpower Training Commission conducted a survey in an effort to learn what factors influence the recruitment and retention of physicians in rural Oklahoma communities. The results of the survey are summarized in this article.

Sixty-one percent of physicians practicing in rural Oklahoma are satisfied with their current practice, while only 56% are satisfied with their income.

These figures were determined by a 1989 survey conducted by the Physician Manpower Training Commission (PMTTC), in which 203 of the 505 physicians practicing in Oklahoma communities under 7,500 population responded.

The PMTC conducted the survey in an effort to learn what characteristics and factors may assist in the recruitment and retention of physicians in rural areas of the state. Questions were grouped into six specific areas of interest: hospital, practice, personal, back-up, economic, and general information.

The survey questionnaire was initially developed for a study conducted by the Wisconsin Division of Health, Wisconsin Primary Care Association, and the US Public Health Service.

According to the survey, the average physician practicing in rural Oklahoma is 44.6 years old and has practiced at his present site for 10.5 years.

Ages of respondents were:

<35 yrs old	22%
35-40 yrs	23%
41-45 yrs	15%
46-50 yrs	11%
51-55 yrs	10%
56-60 yrs	7%
61-65 yrs	6%
66-70 yrs	5%
71 yrs and over	2%

Length of time at current practice:

<1 yr	7%
1-5 yrs	33%
5-10 yrs	21%
10-15 yrs	14%
15-20 yrs	5%
21 yrs and over	21%

Current annual income was reported as follows:

Under \$40,000	13%
\$40,000-\$ 60,000	17%
\$60,000-\$ 80,000	26%
\$80,000-\$100,000	18%
Above \$100,000	26%

Considered particularly important to the respondents were admitting privileges at a hospital; reputation, quality and financial stability of their practice and hospital; assurance of back-up coverage; spouse acceptance of the area; quality of schools, and continuing medical education. Geographic location was

Direct correspondence to John H. Hanley, Physician Manpower Training Commission, Post Office Box 53551, Room 211, Oklahoma City, Oklahoma 73152.



considered important to the rural physicians but, perhaps surprisingly, was not near the top of the list.

Respondents indicated the importance of the following stated activities:

- Continuing medical education . . 87%
- Teaching opportunities . . . . . 30%
- Clinical faculty opportunities . . 11%
- Further subspecialty training . . 15%

Those who expressed dissatisfaction with their current practice were asked to state "what more would you like?"

Responses included:

- More paying patients (22 responses)
- Better back-up coverage (21)
- Equitable Medicare/Medicaid reimbursement (14)
- More time off (9)
- Better quality facilities, equipment, and personnel (5)
- A partner (5)

It was apparent from the responses and comments throughout the questionnaire that the most common complaints from the respondents concerned inequities of Medicare and Medicaid reimbursement and dissatisfaction with back-up coverage. Sixty percent indicated that there should be a statewide locum tenens program.

The physicians were asked to comment regarding why they think physicians may or may not choose to remain in their area of the state to practice. The most common positive responses included:

- Financial security
- Good place to raise families

- Beautiful country
- Appreciated and needed
- Nice people
- Modern hospital, intelligent staff


Most common negative responses included:

- Unequal pay/reimbursement
- Poor technology, facilities, and staff
- Poor economy
- Professional isolation
- Poor back-up coverage
- Lack of specialists or tertiary care facilities

Thirty-five percent of the responding physicians indicated that they owed nothing on medical school loans when they completed their training; 18% owed less than \$10,000; 20% owed \$10,000-\$25,000; 20% owed \$25,000-\$75,000, and 7% owed more than \$75,000.

Eighty-two percent of the physicians felt that a financial incentive program is necessary in order to recruit physicians to practice in rural areas.

The PMTC currently provides financial assistance through its rural scholarship and physician/community match programs. In both programs, the loans are forgiven after the physician practices for a specified time in rural Oklahoma.

Complete information on the rural physician survey is available from the Physician Manpower Training Commission, PO Box 53551, Oklahoma City, Oklahoma 73152, (405) 271-5848. 

**The Author**

John H. Hanley is a physician placement coordinator for the Physician Manpower Training Commission in Oklahoma City.

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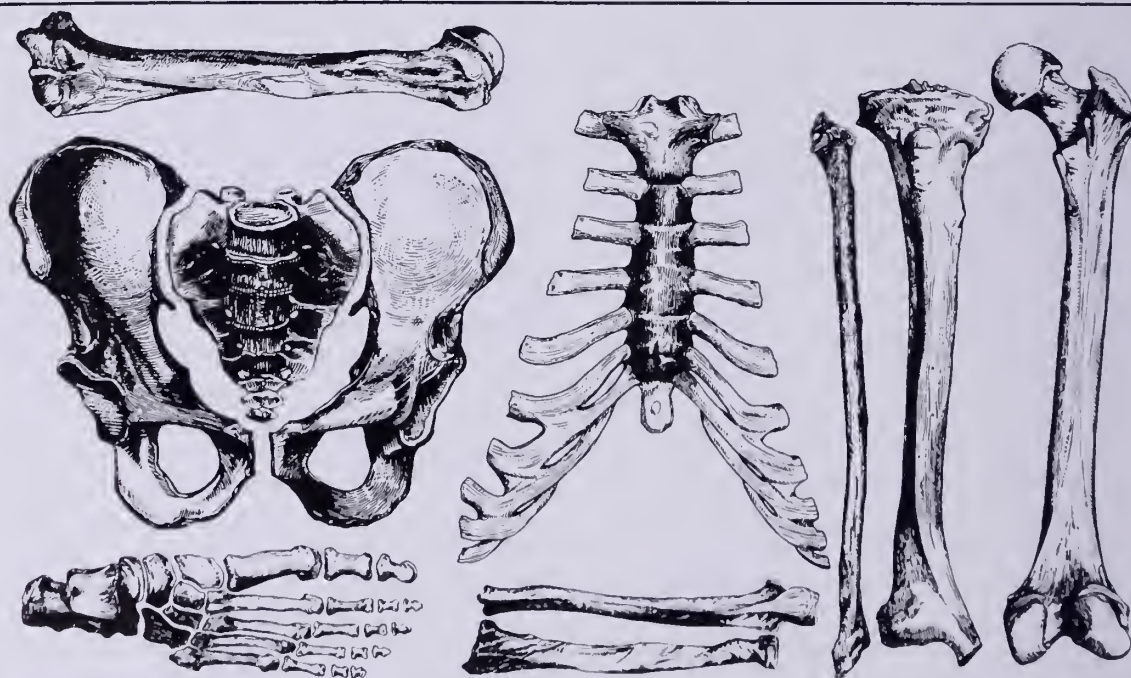
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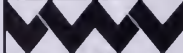
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*Problems increase***State health department issues its recommendations on MRSA**

Worried about growing misunderstanding in the management of antibiotic-resistant organisms such as methicillin-resistant *Staphylococcus aureus* (MRSA), the Oklahoma State Department of Health (OSDH) has issued specific guidelines.

The recommendations come after several months of work by a panel of OSDH representatives, infectious diseases specialists [see letter, page 417], and infection control nurses. They are intended to minimize the increasing number of costly and often unjustified isolation policies being implemented in the management of MRSA.

Following is the complete text of the OSDH policy statement:

**Policy Statement Addressing Antibiotic-Resistant Organisms, Including Methicillin-Resistant *Staphylococcus aureus***

The prevalence of antibiotic-resistant organisms, such as methicillin-resistant *Staphylococcus aureus* (MRSA) and certain gram negative bacilli, is increasing. Methicillin-resistant *Staphylococcus aureus* has drawn particular attention.

The following recommendations are suggested to help control the spread of antibiotic-resistant bacteria:

1. Since it is often not possible to know which persons are colonized or infected with resistant organisms, *all* persons should be considered potential carriers. This is analogous to the concept of *universal precautions* applied to the prevention of HIV transmission.
2. *Handwashing* should be practiced before and after contact with *all* patients. A program for implementation of handwashing must be formulated by all institutions. Gloves should be worn when in contact with all body substances, but this does not preclude the importance of handwashing. Gowns should be worn if soiling is likely. Masks are indicated only when close contact with infected aerosols (eg, respiratory droplets from a coughing patient) may occur. Physical isolation of individual patients colonized with resistant organisms is not indicated under most circumstances.
3. Colonization with a resistant organism is neither an indication for hospitalization nor a reason to restrict admission to a nursing home.
4. Infections should be evaluated and treated on a case-by-case basis.

Educational programs are being developed to disseminate these recommendations. For further information, please call Dr Scott McNabb at (405) 271-4060.

***New project at OUHSC to study reform for medical education***

A major project to reform medical education is being initiated at the University of Oklahoma Health Sciences Center (OUHSC) in Oklahoma City.

Organizers of the Oklahoma Model of Medical Education for the Twenty-First Century (OMME-21) hope the program will have a major impact on the way physicians are educated and trained.

A planning committee, already organized, will consider such changes as advocating early admission into medical school, reducing the length of time spent in becoming a physician from 12 to 10 years, grouping courses together to boost cost-effectiveness, and having the medical college provide students with hands-on training in settings more typical of the shape of practice in the twenty-first century. In addition, they

will consider exploiting more fully the brain's natural process of "chunking" information, which involves the grouping together of certain sets of information.

Program Director Gordon H. Deckert, MD, David Ross Boyd Professor of Psychiatry and Behavioral Sciences at OUHSC, says broad-based changes are needed in the way physicians are educated. The curriculum used by most medical colleges "hasn't changed much in the past 50 years," and employs too much factual learning and not enough hands-on and psychologically oriented learning, he says.

Program organizers hope OMME-21 will become a model across the United States.

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**At her recent induction as president-elect** of the American Medical Association Auxiliary (AMAA), Sherry Strebel (Mrs. Gary), Oklahoma City, receives congratulations and flowers from OSMA President Perry A. Lambird, MD. The AMAA met in June at Chicago's Drake Hotel while the annual AMA meeting was in progress at the nearby Hyatt Regency Hotel. (More pictures on pp 417 and 418.)

## PLICO-approved

### **Perinatal Task Force releases its new prenatal record form**

The Perinatal Task Force of the Oklahoma State Medical Association has developed and released a prenatal record form for use by Oklahoma physicians who deliver babies.

The Board of Directors of the Physicians Liability Insurance Company (PLICO) has approved the new form as well as one developed by the American College of Obstetrics and Gynecology. While the board is not mandating the use of either form, it recommends that physicians who deliver babies employ some type of comprehensive record.

The task force's two-page, single-sheet form appears on pages 413 and 414, and although this version varies slightly from the one published in the June issue of *PLICO News*, both are acceptable to PLICO. Physicians are invited to remove the form and photocopy or reprint it as often as desired for use in their practices. (J)



# RENATAL RECORD 1

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Work: \_\_\_\_\_

Age: \_\_\_\_\_ Birthdate: \_\_\_\_\_ Yrs. Education: \_\_\_\_\_ College: \_\_\_\_\_

CE: W B I H O Occupation: \_\_\_\_\_

Marital Status: Single Married Divorced Widowed  
 Name: \_\_\_\_\_ Phone: \_\_\_\_\_ Work: \_\_\_\_\_ Yrs. Education: \_\_\_\_\_ College: \_\_\_\_\_

Previous Pregnancy History: Parity Code: Gravida \_\_\_\_\_ Term \_\_\_\_\_ Preterm \_\_\_\_\_ Abortions \_\_\_\_\_ Living \_\_\_\_\_

Year	Ab* E S T	Weeks ** A or D	Weight Sex	Type V, C/S, Forceps	Place	Doctor	Length of Labor	Comments/ Complications
		A D						
		A D						
		A D						
		A D						
		A D						

\*E = Elective, S = Spontaneous, T = Therapeutic, \*\*A = Alive, D = Dead

## Family Medical History:

Diabetes (Insulin)  
 Hypertension (Meds)  
 Rheumatic Fever/Heart Disease  
 Asthma/Bronchitis  
 Chronic GI problems  
 Urinary Tract Disease  
 Hepatitis, Liver Disease  
 Seizures (Meds)  
 Thyroid Disease

(Explain details in box)

10. Rh, other isoimmunization
11. Phlebitis, Embolism
12. Gyn Surgery
13. Other Surgery
14. Major Accidents
15. Psychiatric Illness (Meds)
16. Infertility (Rx)
17. Other disease (list)
18. Drug Allergy (list)

INITIAL PHYSICAL EXAMINATION		
Abnormal	Pre-pregnancy	
	Ht _____	Wt _____
	Skin	
	HEENT	
	Thyroid	
	Heart	
	Lungs	
	Breasts	
	Abdomen	
	Back	
	Extremities	
	Neurologic	
	Vulva	
	Vagina	
	Cervix	
	Uterus Adnexa	
	Adnexa	
	Rectum	
	Pelvic Size:	Normal Small

EDC: LNMP \_\_\_\_\_ EDC \_\_\_\_\_

Periods monthly: Y N (explain) \_\_\_\_\_

On BCP at Conception: No Yes

Initial Exam Uterine Size: Agrees Larger Smaller

U/S Indicated: No Scheduled: \_\_\_\_\_

Pregnancy Test Positive Date: \_\_\_\_\_

## Comments: Abnormal Physical Findings:

## Medications: (List)

**Laboratory test: (Results)**

(Date)

U/A/Culture: \_\_\_\_\_

STS: \_\_\_\_\_

Rh Type: \_\_\_\_\_

Antibody Screen: _____	
------------------------	--

Sickle Cell Screen (Black): \_\_\_\_\_

Rubella:	immune	not immune	
----------	--------	------------	--

Hepatitis B Surface Antigen (HB S Ag)	pos	neg	
---------------------------------------	-----	-----	--

Cervical Cytology: \_\_\_\_\_

MSAFP:	Offered	Refused	
Yes	100	100	200
No	100	100	200
Total	200	200	400

RhoGam candidate?    Y    N    Rh Immune    Globulin given:    Date: \_\_\_\_\_    Initials: \_\_\_\_\_

(Date)

(Date

Other Lab: \_\_\_\_\_

Lab: 24–28 weeks:

Glucose Screen:

Hgb/Hcrit:

## EDC \_\_\_\_\_

DATE:

[illegible]

### PROBLEMS LIST:

**CARE PLAN:**

Delivery Hospital: \_\_\_\_\_ Anesthesia Plan: \_\_\_\_\_

Sterilization?	Y	N	Breastfeeding?	Y	N	Undecided	Circumcision?	Y	N
----------------	---	---	----------------	---	---	-----------	---------------	---	---



Oklahoma State Department of Health

## Oklahoma Medicare Influenza Project will continue this fall



The Oklahoma Influenza Project immunized 166,564 (40%) of the targeted 419,000 Medicare Part B population in 1989. Oklahoma's physicians immunized 107,493 (25.6%) of the targeted group. The goal for 1990

will be to increase the total number of Medicare Part B recipients to 60%.

The design of the project is to study the cost-effectiveness of providing free flu vaccine to the Medicare Part B population compared to the cost of the health care associated with the disease. Participating physicians will be provided vaccine and reimbursed \$8 per dose administered.

The same provider groups will be utilized in 1990. The influenza staff assigned to a specific geographic location will telephone all physicians who participated last year to inform them the new project agreement is being sent and obtain their verbal commitment and address any concerns. An appointment will be scheduled for any physician who participated in 1989 who wishes to discuss any component of the program. New physician practices will be contacted and appointments scheduled using the successful approach utilized in 1989.

The slogan for this year's campaign has been changed to "Attention Medicare B — Flu Shots Are Free." An exam room poster will be distributed to each physician to display in the separate exam rooms. The message will be:

FLU CAN KILL  
ATTENTION MEDICARE B  
FLU SHOTS ARE FREE

A postcard will be designed to remind patients of special clinics. Each physician practice will be asked for the total number of Medicare Part B clients. Each practice will be encouraged to send a postcard to all patients to notify them about the free vaccine for Medicare Part B. The postcard will be available from the Immunization Division.

Promotional materials will be mailed at the end of August, and vaccine will be shipped the first week of September. The optimal time to administer vaccine is November. However, the vaccine will be shipped in September for physicians to immunize patients they do not expect to see again until after November. Physicians are asked not to advertise special clinics until October 15th.

Medicare will mail a special letter notifying each Medicare beneficiary in Oklahoma of the project. A toll-free number will be provided for persons to call and check whether their physician is participating or to learn the date and location of the nearest public clinic.

The participation of Oklahoma's physicians is paramount to the success of the Medicare Influenza Project. For more information about this project and how to participate, please contact the Immunization Division at 405/271-4073. □

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## DEATHS

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**David Sprouse Dycus, MD**  
1934 - 1990

Moore family physician David S. Dycus, MD, died June 28, 1990. A native of Sulphur, Dr Dycus attended the University of Oklahoma School of Medicine, where he earned his medical degree in 1961. He interned at St. John Hospital, Tulsa, from 1961 to 1962 before establishing his practice in the Moore-Norman area.

**Ray Maxwell Wadsworth, MD**  
1900 - 1990

OSMA Life Member Ray M. Wadsworth, MD, Wichita, died June 11, 1990. A pediatrician in Tulsa for many years, Dr Wadsworth was born in Santa Rosa, Calif, and graduated from the University of Oklahoma School of Medicine in 1942. He served on active duty with the US Army for two and a half years during World War II and at the time of his discharge held the rank of captain. Dr Wadsworth was awarded a Life Membership in the OSMA in 1970. □

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**Norman physician George H. Hulsey, MD (r),** chairman of the National Wildlife Federation, presents a special award to outgoing AMA President **Alan R. Nelson, MD,** during the AMA's recent meeting in Chicago. The award recognizes the AMA's commitment to environmental concerns.

## REACTION TIME

### Doctor says MRSA should not be viewed as "Andromeda strain"

*To the Editor:* Management of methicillin-resistant Staph aureus (MRSA) has become particularly problematic in our state. Whereas we could logically regard MRSA as simply another multiply-resistant organism — similar to *Pseudomonas aeruginosa* or *Candida* in this respect — its advent has generated misunderstandings and fears that toe the line of irrational, in my opinion. This has resulted in shuttling unwitting patients between hospitals and nursing homes, treatment regimens aimed at eradicating colonization, and particularly stringent isolation regimens. Since the premise that MRSA is a highly contagious, untreatable "Andromeda strain" is false, these consequences are unjust to our patients and economically unsound.

Upset with the state of affairs created by MRSA misunderstandings, a group of infectious diseases clinicians, infection control nurses, and State Health representatives — with the voices of nursing homes heard as well — has been working diligently over the past several months to come up with recommendations to quell the misunderstandings and guide man-



**Gary F. Strebel, MD (l),** Oklahoma City, attends the induction of his wife, Sherry, as AMAA president-elect. With him (l to r) are OSMA President **Perry A. Lambird, MD;** President-Elect **Billy D. Dotter, MD;** and Executive Director **David Bickham.**



**Ed L. Calhoon, MD,** Beaver, chairman of the AMA Reference Committee on Constitution and Bylaws, delivers the committee's report to the AMA House of Delegates. The delegates met June 24-28 in Chicago.

agement. The 22-page document includes information on diagnosis, treatment, surveillance, transmission, and isolation, as well as a section on background and a glossary. A copy of our policy statement is written below [see p 411]. A copy of the complete document can be obtained by calling the State Department of Health (405) 271-4060. It is hoped that these recommendations, along with accompanying education programs, will return MRSA to its proper perspective.

—*Clifford G. Wlodaver, MD*  
Oklahoma City



**Members of the Oklahoma delegation** were kept busy at the AMA's June meeting in Chicago. Left: Seated in the House of Delegates are Gary F. Strebel, MD, Oklahoma City; M. Joe Crosthwait, MD, Midwest City; Michael J. Haugh, MD, Tulsa; and William O. Coleman, MD, Oklahoma City. Right: Standing are Jay A. Gregory, MD, Muskogee; John R. Alexander, MD, Tulsa; and Dr Strebel. Seated are Sara R. DePersio, MD, Oklahoma City; and Burdge F. Green, MD, Stilwell.

## BOOK SHOP

**The Art of Abstracting (Professional Writing Series).** By Edward T. Cremmins. Philadelphia: ISI Press, 1982. Pp 150, \$16.95.

Abstracting may be considered one of the sub-forms of writing. The stated purpose of this book is to assist authors of scientific and scholarly works and abstractors for abstract journals and information systems in writing abstracts. Students in all disciplines at all levels have occasion to prepare abstracts for presentation at meetings and in publications, proceedings, and other printed sources. This book is not light reading in any sense, but it contains all of the facts one needs to prepare an abstract. It is a very useful reference source.

—Harris D. Riley, Jr., MD  
Oklahoma City

**The Women's West.** Edited and with Introductions by Susan Armitage and Elizabeth Jameson. University of Oklahoma Press, 1987, price not given.

"The American West looms large in popular imagination — a place where men were rugged and independent, violent and courageous. In this mythic West all the men were white, and the women were largely absent. . . . Or so the myth goes." So begins the book jacket description of *The Women's West*. Editors Susan

Armitage and Elizabeth Jameson have set out to introduce their readers to a different history. They have collected articles based on papers presented in 1983 at the first Women's West Conference.

The editors take the reader through a review of the myths about women in the West to discussions about who and how women met other people in the West. The next sections examine the life-styles adopted by women in the Pioneer West. These sections, entitled "Emotional Continuities" and "Coming to Terms with the West," introduce the reader to several theories about how the early settlers came to establish their life-styles. The editors have chosen a spectrum of articles that describe women in roles from "Ma Ingalls," of Laura Ingalls Wilder writings, to women homesteaders, prostitutes, domestic servants, and waitresses. In the final section, entitled "Expanding Our Focus," the editors have chosen articles that challenge the reader to look back into history with more detail — to consider ethnicity and social change, to acknowledge the many different groups of women involved in such efforts as the women's suffrage movement.

The articles are, on the whole, well written and researched. Armitage and Jameson have cleverly constructed the sections to bring the reader through this



**Book Shop**
(continued)

educational journey in a logical fashion. The book is fascinating, though it does not lend itself to casual reading without concentration. *The Women's West* encourages the reader to totally rethink the traditional view of the American West and the people who lived there.

The final article is entitled "Western Women's History: A Challenge for the Future" by Suzan Shown Harjo. In the editor's introduction to this article, one finds perhaps the best reasons for reading this book. "She tells us that we cannot separate ourselves from our past and that who we are affects how we see history. . . . An inclusive history is important — because people are important. A history that excludes us trivializes our lives and our needs; it tells us that we were, and are, marginal."

For all who are interested in our western heritage, *The Women's West* offers the challenge of broadening one's perspective.

—Rebecca J. Beckman, MD

**Walter Reed. A Biography.** By William B. Bean. Charlottesville: University Press of Virginia, 1982, pp 190, illustrated, \$12.95.

For many, Walter Reed is an ill-defined name. The late Dr William B. Bean, a Virginian associated with the University of Iowa Medical School and other academic medical centers, has restored to us Walter Reed as an important American medical scientist. For a number of years Dr Bean collected and assembled material on Reed for this book. In addition to extensive archival work, he has interviewed surviving members of the family and others who had connection with Reed. In his epilogue, Bean states that he "tried to bring Walter Reed to life not simply as a medical hero but as a man as well." He has been successful in this objective. There are a few factual errors, but they do not interfere with the story.

The son of a minister, Reed was born in Virginia, graduated in medicine from the University of Virginia in July, 1869, the youngest ever to do so, and attended Bellevue Hospital Medical School in New York where he graduated before he was 21 years of age. He then worked in New York City at the Infants Hospital and subsequently at other hospitals. Primarily for job security and better pay, he joined the army in 1875.

Reed's fifteen years of duty in the army at Frontier Post are recounted. The reader accompanies him on his frequent moves, suffers the isolation, inadequate

facilities, and physical problems of Reed. Despite his isolated surroundings, Reed published several articles on medical subjects. Because of this he was assigned to Johns Hopkins for a year of study. Subsequently, he was reassigned to Washington by George Miller Sternberg, Surgeon General of the Army, and appointed to the faculty of the Army Medical School, which began in 1893. Here he studied various diseases and developed a reputation as a competent investigator. Reed was ready for further chal-

(continued on p 421)

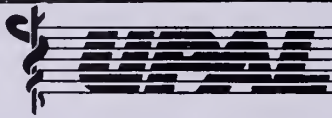
**IN MEMORIAM**

**1989**

Orville McClure Woodson, MD	May 11
Robert Sears Davis, Jr., MD	May 13
James Richard Riggall, MD	May 30
Howard Choice Martin, MD	July 23
D. Evelyn Miller, MD	July 30
Nevin Wilson Dodd, MD	July 31
Alwyn Travers Kornblee, MD	August 7
Edward Keats Norfleet, MD	August 13
Wayman Jackson Thompson, MD	September 20
Rheba L. Huff Edwards, MD	September 30
George Harry Garrison, MD	October 5
Monroe Ruework Jennings, MD	October 27
Edmund Gordon Ferguson, MD	November 17
Don Lee Dycus, MD	December 6
Sylvester Robert Shaver, MD	December 16
Charles Edwards Leonard, MD	December 27

**1990**

John Justice Batchelor, MD	January 8
Fred W. Sellers, MD	January 11
Dewey Lee Mathews, MD	January 18
Powell Everett Fry, MD	January 28
Alpha Louis Johnson, MD	February 3
Marshall W. Opper, MD	February 12
Vincel Sundgren, MD	March 1
Glen Smith Kreger, MD	March 25
Martin James Fitzpatrick, MD	March 27
David Charles Lowry, MD	March 30
Robert Alan Johnston, MD	April 9
Hervey Adolph Foerster, MD	April 15
Paul E. Kaldahl, MD	May 4
Homer Vincent Archer, MD	May 8
Ray Maxwell Wadsworth, MD	June 11
David Sprouse Dycus, MD	June 28



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- |                               |                                 |                                |                               |
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| Akers, David, M.D.            | Frame, Lynn, M.D.               | Lackey, J.D., M.D.             | Redding, Ralph, M.D.          |
| Alexander, John R., M.D.      | Friend, Jonathan D., M.D.       | Laing, V.O., M.D.              | Reid, Richard H., M.D.        |
| Allred, H. William, Jr., M.D. | Frow, David F., M.D.            | Lamar, Walter, M.D.            | Ribak, Brian, M.D.            |
| Andelman, Sumner, Y., M.D.    | Garber, E. Bradley, M.D.        | Landgarten, Steven, M.D.       | Richter, Ralph W., M.D.       |
| Anderson, Lloyd T., M.D.      | Gawey, Steve, M.D.              | Lantz, Gordon D., M.D.         | Robards, Victor L., Jr., M.D. |
| Ashley, Robert E., M.D.       | Geffen, William, M.D.           | Larson, Lora, M.D.             | Sarfatis, Peter, M.D.         |
| Balyeat, Ray M., M.D.         | Giddens, Jimmy D., M.D.         | Laughlin, Brent W., M.D.       | Say, Burhan, M.D.             |
| Barranco, Vincent P., M.D.    | Gilliland, Stephen R., M.D.     | Leach, James R., M.D.          | Schwartz, David L., M.D.      |
| Bass, Haskell H., Jr., M.D.   | Gist, Joel K., M.D.             | Ledford, Keith, M.D.           | Searcy, R.A., M.D.            |
| Basta, Lofty, M.D.            | Given, Richard J., M.D.         | Lewis, C.S., Jr., M.D.         | Setter, Kenneth R., M.D.      |
| Baumann, Walter E., M.D.      | Goen, Rayburne W., Sr., M.D.    | Liebendorfer, Richard A., M.D. | Sevier, Bill R., M.D.         |
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enges when the Spanish-American War broke out in 1898.

Reed's name is associated with two studies in particular. The one dealing with yellow fever is better known. However, his study on typhoid fever in recruit camps is equally as important. Reed directed an investigating team made up of Victor C. Vaughan and E.O. Shakespeare in defining the epidemiology of typhoid and establishing proof of a carrier state. The work laid the foundation for elimination of this disease.

About half of the book is devoted to the story of the conquest of yellow fever. Reed again directed an investigating team which eventually came to test the hypothesis that yellow fever was transmitted by mosquitos. All of the ups and downs of this work (and controversies) proving that the mosquito *Aedes aegypti* transmitted yellow fever is provided. This finding, which was a landmark in public health, is generally regarded as the greatest American contribution to medicine to that time. Reed's demand for rigid experimental design stands out.

Throughout all this we see Reed not only as an army medical officer but also as an administrator, husband, father, and man. Reed's death on November 23 1902, at the age of 51 was untimely; he probably died from an amoebic infection of the cecum.

The book provides delightful, smooth-flowing reading. It brings back an important American. The regret is that the enormous amount of primary and secondary material assembled by the author is not identified. There are no bibliographic references to the author's extensive research. This is due in part to a dispute with the publisher. It is hoped that the results of Dr Bean's long and extensive labors will be made available to historical and medical scholars in the future.

—Harris D. Riley, Jr., MD  
Oklahoma City

**Carbine and Lance. The Story of Old Fort Sill.**  
By Colonel W.S. Nye. Norman: University of Oklahoma Press, 1983, pp 384, illus, paperback, \$14.95.

This attractive paperback (also available in cloth) represents the third edition and the eleventh printing of this well-known book first published in 1937. It is issued by the University of Oklahoma Press and presents the history of Fort Sill, now the United States Army Field Artillery Center. Thousands of men trained there during two world wars, and many

more passed through the camp's reception center before being permanently assigned to their military unit.

Fort Sill, established by General Phillip Sheridan in 1869, was the focal point of Indian warfare on the southern plains. It is located in the heart of the old Kiowa-Comanche Indian country in southwestern Oklahoma. The author, Colonel Wilber S. Nye, began the research that led to the writing of this book while he was a student in the advanced course of the Field Artillery School at Fort Sill in 1933. He obtained his materials from old military files, from a few printed sources, and by word of mouth from Indians who took part in the events he reports. It is a comprehensive and colorful story of the contacts and conflicts between the Indians and the white man in what is now Oklahoma and north Texas.

*Carbine and Lance* has been enlarged in this edition to include 64 pages of excellent illustrations printed from new plates as well as three new maps.

—Harris D. Riley, Jr., MD  
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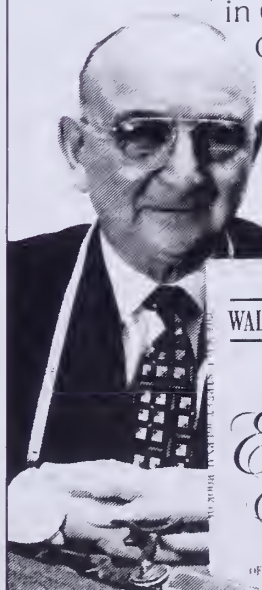


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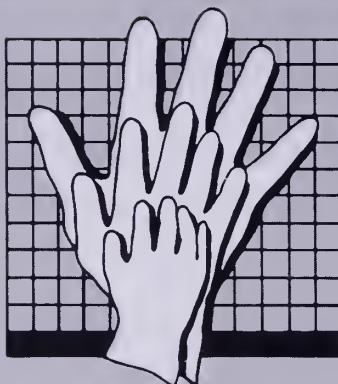
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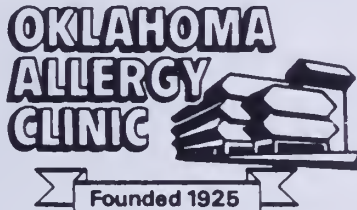
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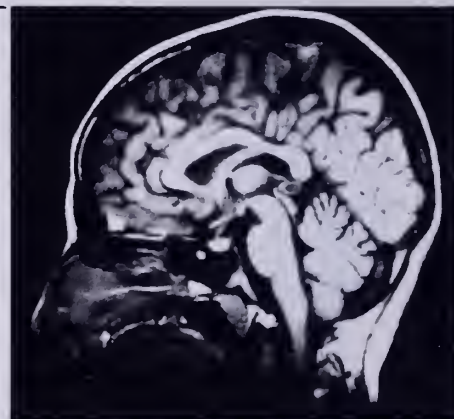
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### Style

All manuscripts should adhere to the style adopted by the American Medical Association as illustrated in *JAMA* and detailed in the AMA's *Manual of Style*. An abstract of 150 words or less should accompany each paper and should state (1) the exact question considered, (2) the key points of methodology and success of execution, (3) the key findings, and (4) the conclusion(s) directly supported by these findings. Footnotes, bibliographies, and legends for illustrations should be typewritten, double-spaced, on separate sheets. References are to be listed in the order of their appearance in the article.

### Illustrations

Illustrations other than the author's will not be accepted for publication unless accompanied by written permission from the original source. Illustrations should be labeled with the author's name and must be numbered in the order in which they are referred to in the article. The quality of all illustrations must be in keeping with the quality of the magazine.

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### News

Readers are encouraged to submit news items of interest to Oklahoma physicians. Where dates of meetings, etc., are important, please remember that each issue closes on the first day of the *preceding* month and reaches subscribers in the latter half of the month of publication.

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■ **Dermatologist Dennis A. Weigand, MD,** was recently named winner of the first James F. Hammarsten Physician of Excellence Award. The award, presented by the Veterans Administration Medical Center (VAMC) in Oklahoma City, honors local VA staff physicians for significant contributions to research, education, and patient care. Dr Weigand is chief of dermatology services at VAMC and also professor and vice head of the department of dermatology at the University of Oklahoma Health Sciences Center. Dr Hammarsten, for whom the award is named, was chief of medical service at VAMC from 1953 to 1962.

■ **Robert B. Zumwalt, MD, Tecumseh,** was a participant in the Oklahoma Bicycle Society's Grand Tour of Colorado in June. An avid cyclist [see "Confessions of a Bicycle Junkie," JOURNAL, Feb 1990], Dr Zumwalt estimates that at age 63, he was the oldest of 32 riders participating in the grueling one-week tour.

■ **Videotapes on the risk of occupational exposure** to blood-borne pathogens are now available on one-week loan from the Oklahoma State Department of Health (OSDH). Produced by Syntex Laboratories, the tapes address exposure to hepatitis B and HIV viruses and discuss prevention methods. There are three 20-minute tapes geared for physicians and nurses, housekeeping and laundry personnel, and laboratory workers, respectively. For information call the OSDH Films and Publications Division, (405) 271-5188.

■ **Resident physicians Philip L. Jones, Jr., MD,** Department of Urology, and Mary L. Stoffel, MD, Department of Obstetrics and Gynecology, at the University of Oklahoma Health Sciences Center (OUHSC) in Oklahoma City, recently were awarded scholarships from the Lloyd and Ruth Rader Trust. Scholarship recipients are noted for their excellence in medicine and for displaying great promise for an outstanding career in medical research or the clinical care of children or adults. Awards are based on nominations from the OU College of Medicine faculty.

Serving on the selection committee this year were Donald B. Halverstadt, MD, chief of pediatric urology at Children's Hospital of Oklahoma; Mark Allen Everett, MD, chairman of the OUHSC Department

of Dermatology; William G. Thurman, MD, president of the Oklahoma Medical Research Foundation; Webb M. Thompson, Jr., MD, professor emeritus of pediatrics at OUHSC; and Jay P. Cannon, MD, general surgeon at the Oklahoma City Clinic.

■ **Information on viral hepatitis is now available** by telephone from the Hepatitis Branch, Centers for Disease Control (CDC), Atlanta. The automated system provides information on all types of hepatitis and includes risks, modes of transmission, prevention, serologic diagnosis, and infection control. The system number is (404) 332-4555.

■ **Three workshops presented by the AIDS Division** of the Oklahoma State Department of Health (OSDH) have been scheduled in September. The following workshops will be conducted in both Oklahoma City and Tulsa: Certified Educator Skills Workshop, September 11 and 12; HIV Infection Seminar, September 18 and 19; and Counseling and Testing Skills Workshop, September 25 and 27. Preregistration is required. For registration forms and information contact the AIDS Division, OSDH, (405) 271-4636.

■ **The 11-minute videotape *Milestones in Medicine***, produced by the American Medical Association (AMA), is now available to hospital medical staffs. First shown in February at the AMA's National Leadership Conference in Phoenix, the film looks at the 90-year history of medicine in America. A complimentary copy of the 1/2-inch VHS program may be obtained by calling the AMA TV, Radio and Film Services, (312) 645-5002.

■ **"New Concepts in Headache Management"** is the title of a program to be presented Friday, September 7, at the Saint Francis Hospital Education Center in Tulsa. The program, which runs from 8 AM to 3:30 PM, is designed to provide physicians with state-of-the-art information on headache care and management. The offering meets the criteria for six hours of Category I credit. Advance registration is required and must be made by August 31. For information write Saint Francis Hospital, Department of Education, 6161 S. Yale Avenue, Tulsa, OK 74136, or call 1-918-494-6490. □





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**Warnings:** Angioedema. Angioedema of the face, extremities, lips, tongue, glottis and/or larynx has been reported in patients treated with ACE inhibitors, including VASOTEC. In such cases, VASOTEC should be promptly discontinued and the patient carefully observed until the swelling disappears. In instances where swelling has been confined to the face and lips, the condition has generally resolved without treatment, although antihistamines have been useful in relieving symptoms. Angioedema associated with laryngeal edema may be fatal. **Where there is involvement of the tongue, glottis, or larynx likely to cause airway obstruction, appropriate therapy, e.g., subcutaneous epinephrine solution 1:1000 (0.3 mL to 0.5 mL), should be promptly administered.** (See ADVERSE REACTIONS.)

**Hypotension:** Excessive hypotension is rare in uncomplicated hypertensive patients treated with VASOTEC alone. Patients with heart failure given VASOTEC commonly have some reduction in blood pressure, especially with the first dose, but discontinuation of therapy for continuing symptomatic hypotension usually is not necessary when dosing instructions are followed, caution should be observed when initiating therapy. (See DOSAGE AND ADMINISTRATION.) Patients at risk for excessive hypotension, sometimes associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death, include those with the following conditions or characteristics: heart failure, hyponatremia, high-dose diuretic therapy, recent intensive diuresis or increase in diuretic dose, renal dialysis, or severe volume and/or salt depletion of any etiology. It may be advisable to eliminate the diuretic (except in patients with heart failure), reduce the diuretic dose, or increase salt intake cautiously before initiating therapy with VASOTEC in patients at risk for excessive hypotension who are able to tolerate such adjustments. (See PRECAUTIONS, Drug Interactions and ADVERSE REACTIONS.) In patients at risk for excessive hypotension, therapy should be started under very close medical supervision and such patients should be followed closely for the first two weeks of treatment and whenever the dose of enalapril and/or diuretic is increased. Similar considerations may apply to patients with ischemic heart disease or cardiovascular disease in whom an excessive fall in blood pressure could result in a myocardial infarction or cerebrovascular accident. If excessive hypotension occurs, the patient should be placed in the supine position and, if necessary, receive an intravenous infusion of normal saline. A transient hypotensive response is not a contraindication to further doses of VASOTEC, which usually can be given without difficulty once the blood pressure has stabilized. If symptomatic hypotension develops, a dose reduction or discontinuation of VASOTEC or concomitant diuretic may be necessary.

**Neutropenia/Agranulocytosis:** Another ACE inhibitor, captopril, has been shown to cause agranulocytosis and bone marrow depression, rarely in uncomplicated patients but more frequently in patients with renal impairment, especially if they also have a collagen vascular disease. Available data from clinical trials of enalapril are insufficient to show that enalapril does not cause agranulocytosis at similar rates. Foreign marketing experience has revealed several cases of neutropenia or agranulocytosis in which a causal relationship to enalapril cannot be excluded. Periodic monitoring of white blood cell counts in patients with collagen vascular disease and renal disease should be considered.

**Precautions: General Impaired Renal Function:** As a consequence of inhibiting the renin-angiotensin-aldosterone system, changes in renal function may be anticipated in susceptible individuals. In patients with severe heart failure whose renal function may depend on the activity of the renin-angiotensin-aldosterone system, treatment with ACE inhibitors, including VASOTEC, may be associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death.

In clinical studies in hypertensive patients with unilateral or bilateral renal artery stenosis, increases in blood urea nitrogen and serum creatinine were observed in 20% of patients. These increases were almost always reversible upon discontinuation of enalapril and/or diuretic therapy. In such patients, renal function should be monitored during the first few weeks of therapy.

Some patients with hypertension or heart failure with no apparent preexisting renal vascular disease have developed increases in blood urea and serum creatinine, usually minor and transient, especially when VASOTEC has been given concomitantly with a diuretic. This is more likely to occur in patients with preexisting renal impairment. Dosage reduction and/or discontinuation of the diuretic and/or VASOTEC may be required.

**Evaluation of patients with hypertension or heart failure should always include assessment of renal function.** (See DOSAGE AND ADMINISTRATION.)

**Hyperkalemia:** Elevated serum potassium ( $>5.7$  mEq/L) was observed in approximately 1% of hypertensive patients in clinical trials. In most cases these were isolated values which resolved despite continued therapy. Hyperkalemia was a cause of discontinuation of therapy in 0.28% of hypertensive patients. In clinical trials in heart failure, hyperkalemia was observed in 3.8% of patients, but was not a cause for discontinuation.

Risk factors for the development of hyperkalemia include renal insufficiency, diabetes mellitus, and the concomitant use of potassium-sparing diuretics, potassium supplements, and/or potassium-containing salt substitutes, which should be used cautiously, if at all, with VASOTEC. (See Drug Interactions.)

**Surgery/Anesthesia:** In patients undergoing major surgery or under anesthesia with agents that produce hypotension enalapril may block angiotensin II formation secondary to compensatory renin release. If hypotension occurs and is considered to be due to this mechanism, it can be corrected by volume expansion.

#### Information for Patients

**Angioedema:** Angioedema, including laryngeal edema, may occur especially following the first dose of enalapril. Patients should be so advised and told to report immediately any signs or symptoms suggesting angioedema (swelling of the face, extremities, eyes, lips, tongue, difficulty in swallowing or breathing) and to take no more drug until they have consulted with the prescribing physician.

**Hypotension:** Patients should be cautioned to report lightheadedness, especially during the first few days of therapy. If actual syncope occurs, the patients should be told to discontinue the drug until they have consulted with the prescribing physician.

All patients should be cautioned that excessive perspiration and dehydration may lead to an excessive fall in blood pressure because of reduction in fluid volume. Other causes of volume depletion such as vomiting or diarrhea may also lead to a fall in blood pressure; patients should be advised to consult with the physician.

**Hyperkalemia:** Patients should be told not to use salt substitutes containing potassium without consulting their physician.

**Neutropenia:** Patients should be told to report promptly any indication of infection (e.g., sore throat, fever) which may be a sign of neutropenia.

**NOTE:** As with many other drugs, certain advice to patients being treated with enalapril is warranted. This information is intended to aid in the safe and effective use of this medication. It is not a disclosure of all possible adverse or intended effects.

#### Drug Interactions

**Hypotension: Patients on Diuretic Therapy:** Patients on diuretics and especially those in whom diuretic therapy was recently instituted may occasionally experience an excessive reduction of blood pressure after initiation of therapy with enalapril. The possibility of hypotensive effects with enalapril can be minimized by either discontinuing the diuretic or increasing the salt intake prior to initiation of treatment with enalapril. If it is necessary to continue the diuretic, provide close medical supervision after the initial dose for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and DOSAGE AND ADMINISTRATION.)

**Agents Causing Renin Release:** The antihypertensive effect of VASOTEC is augmented by antihypertensive agents that cause renin release (e.g., diuretics).

**Other Cardiovascular Agents:** VASOTEC has been used concomitantly with beta-adrenergic-blocking agents, methylglucosides, nitrates, calcium-blocking agents, hydralazine, prazosin, and digoxin without evidence of clinically significant adverse interactions.

**Agents Increasing Serum Potassium:** VASOTEC attenuates potassium loss caused by thiazide-type diuretics. Potassium-sparing diuretics (e.g., spironolactone, triamterene, or amiloride), potassium supplements, or potassium-containing salt substitutes may lead to significant increases in serum potassium. Therefore, if concomitant use of these agents is indicated because of demonstrated hypokalemia, they should be used with caution and with frequent monitoring of serum potassium. Potassium-sparing agents should generally not be used in patients with heart failure receiving VASOTEC.

**Lithium:** Lithium toxicity has been reported in patients receiving lithium concomitantly with drugs which cause elimination of sodium, including ACE inhibitors. A few cases of lithium toxicity have been reported in patients receiving concomitant VASOTEC and lithium and were reversible upon discontinuation of both drugs. It is recommended that serum lithium levels be monitored frequently if enalapril is administered concomitantly with lithium.

**Pregnancy—Category C:** There was no fetotoxicity or teratogenicity in rats treated with up to 200 mg/kg/day of enalapril (333 times the maximum human dose). Fetotoxicity, expressed as a decrease in average fetal weight, occurred in rats given 1200 mg/kg/day of enalapril but did not occur when these animals were supplemented with saline. Enalapril was not teratogenic in rabbits. However, maternal and fetal toxicity occurred in some rabbits at doses of 1 mg/kg/day or more. Saline supplementation prevented the maternal and fetal toxicity seen at doses of 3 and 10 mg/kg/day, but not at 30 mg/kg/day (50 times the maximum human dose).

Radioactivity was found to cross the placenta following administration of labeled enalapril to pregnant hamsters. There are no adequate and well-controlled studies of enalapril in pregnant women. However, data are available that

been clearly defined, VASOTEC<sup>®</sup> (Enalapril Maleate, MSO) should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Postmarketing experience with all ACE inhibitors thus far suggests the following with regard to pregnancy outcome: Inadvertent exposure limited to the first trimester of pregnancy has not been reported to affect fetal outcome adversely. Fetal exposure during the second and third trimesters of pregnancy has been associated with fetal and neonatal morbidity and mortality.

When ACE inhibitors are used during the latter stages of pregnancy, there have been reports of hypotension and decreased renal perfusion in the newborn. Oligohydramnios in the mother has also been reported, presumably representing decreased renal function in the fetus. Infants exposed *in utero* to ACE inhibitors should be closely observed for hypotension, oliguria, and hyperkalemia. If oliguria occurs, attention should be directed toward support of blood pressure and renal perfusion with the administration of fluids and pressors as appropriate. Problems associated with prematurity such as patent ductus arteriosus have occurred in association with maternal use of ACE inhibitors, but it is not clear whether they are related to ACE inhibition, maternal hypotension, or the underlying prematurity.

**Nursing Mothers:** Milk in lactating rats contains radioactivity following administration of <sup>14</sup>C enalapril maleate. It is not known whether this drug is secreted in human milk. Because many drugs are secreted in human milk, caution should be exercised when VASOTEC is given to a nursing mother.

**Pediatric Use:** Safety and effectiveness in children have not been established.

**Adverse Reactions:** VASOTEC has been evaluated for safety in more than 10,000 patients, including over 1000 patients treated for one year or more. VASOTEC has been found to be generally well tolerated in controlled clinical trials involving 2987 patients.

**HYPERTENSION:** The most frequent clinical adverse experiences in controlled trials were headache (5.2%), dizziness (4.3%), and fatigue (3%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in controlled clinical trials were diarrhea (4.4%), nausea (1.4%), rash (1.4%), cough (1.3%), orthostatic effects (1.2%), and asthenia (1.1%).

**HEART FAILURE:** The most frequent clinical adverse experiences in both controlled and uncontrolled trials were dizziness (7.9%), hypotension (6.7%), orthostatic effects (2.2%), syncope (2.2%), cough (2.2%), chest pain (2.1%), and diarrhea (2.1%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in both controlled and uncontrolled clinical trials were fatigue (1.8%), headache (1.8%), abdominal pain (1.6%), asthenia (1.6%), orthostatic hypotension (1.6%), vertigo (1.6%), angina pectoris (1.5%), nausea (1.3%), vomiting (1.3%), bronchitis (1.3%), dyspnea (1.3%), urinary tract infection (1.3%), rash (1.3%), and myocardial infarction (1.2%).

Other serious clinical adverse experiences occurring since the drug was marketed or adverse experiences occurring in 0.5% to 1% of patients with hypertension or heart failure in clinical trials in order of decreasing severity within each category:

**Cardiovascular:** Cardiac arrest, myocardial infarction or cerebrovascular accident, possibly secondary to excessive hypotension in high-risk patients (see WARNINGS, Hypotension); pulmonary embolism and infarction, pulmonary edema, rhythm disturbances, atrial fibrillation, palpitation.

**Digestive:** Ileus, pancreatitis, hepatitis (hepatocellular or cholestatic jaundice), melena, anorexia, dyspepsia, constipation, glossitis, stomatitis, dry mouth.

**Musculoskeletal:** Muscle cramps.

**Nervous/Psychiatric:** Depression, confusion, ataxia, somnolence, insomnia, nervousness, paresthesia.

**Urogenital:** Renal failure, oliguria, renal dysfunction (see PRECAUTIONS and DOSAGE AND ADMINISTRATION).

**Respiratory:** Bronchospasm, rhinorrhea, sore throat and hoarseness, asthma, upper respiratory infection.

**Skin:** Exfoliative dermatitis, toxic epidermal necrolysis, Stevens-Johnson syndrome, herpes zoster, erythema multiforme, urticaria, pruritus, alopecia, flushing, hyperhidrosis.

**Special Senses:** Blurred vision, taste alteration, anosmia, tinnitus, conjunctivitis, dry eyes, tearing.

A symptom complex has been reported which may include a positive ANA, an elevated erythrocyte sedimentation rate, arthralgias/arthritis, myalgias, fever, serositis, vasculitis, leukocytosis, eosinophilia, photosensitivity, rash, and other dermatologic manifestations.

**Angioedema:** Angioedema has been reported in patients receiving VASOTEC (0.2%). Angioedema associated with laryngeal edema may be fatal. If angioedema of the face, extremities, lips, tongue, glottis, and/or larynx occurs, treatment with VASOTEC should be discontinued and appropriate therapy instituted immediately. (See WARNINGS.)

**Hypotension:** In the hypertensive patients, hypotension occurred in 0.9% and syncope occurred in 0.5% of patients following the initial dose or during extended therapy. Hypotension or syncope was a cause for discontinuation of therapy in 0.1% of hypertensive patients. In heart failure patients, hypotension occurred in 6.7% and syncope occurred in 2.2% of patients. Hypotension or syncope was a cause for discontinuation of therapy in 1.9% of patients with heart failure. (See WARNINGS.)

#### Clinical Laboratory Test Findings

**Serum Electrolytes:** Hyperkalemia (see PRECAUTIONS), hyponatremia.

**Creatinine, Blood Urea Nitrogen:** In controlled clinical trials, minor increases in blood urea nitrogen and serum creatinine, reversible upon discontinuation of therapy, were observed in about 0.2% of patients with essential hypertension treated with VASOTEC alone. Increases are more likely to occur in patients receiving concomitant diuretics or in patients with renal artery stenosis. (See PRECAUTIONS.) In patients with heart failure who were also receiving diuretics with or without digitalis, increases in blood urea nitrogen or serum creatinine, usually reversible upon discontinuation of VASOTEC and/or other concomitant diuretic therapy, were observed in about 11% of patients. Increases in blood urea nitrogen or creatinine were a cause for discontinuation in 1.2% of patients.

**Hemoglobin and Hematocrit:** Small decreases in hemoglobin and hematocrit (mean decreases of approximately 0.3 g% and 1.0 vol%, respectively) occur frequently in either hypertension or heart failure patients treated with VASOTEC but are rarely of clinical importance unless another cause of anemia coexists. In clinical trials, less than 0.1% of patients discontinued therapy due to anemia.

**Other (Causal Relationship Unknown):** In marketing experience, rare cases of neutropenia, thrombocytopenia, and bone marrow depression have been reported. A few cases of hemolysis have been reported in patients with G6PD deficiency.

**Liver Function Tests:** Elevations of liver enzymes and/or serum bilirubin have occurred.

**Dosage and Administration:** Hypertension. In patients who are currently being treated with a diuretic, symptomatic hypotension occasionally may occur following the initial dose of VASOTEC. The diuretic should, if possible, be discontinued for two to three days before beginning therapy with VASOTEC to reduce the likelihood of hypotension. (See WARNINGS.) If the patient's blood pressure is not controlled with VASOTEC alone, diuretic therapy may be resumed.

If the diuretic cannot be discontinued, an initial dose of 2.5 mg should be used under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, Drug Interactions.)

The recommended initial dose in patients not on diuretics is 5 mg once a day. Dosage should be adjusted according to blood pressure response. The usual dosage range is 10 to 40 mg per day administered as a single dose or in two divided doses. In some patients treated once daily, the antihypertensive effect may diminish toward the end of the dosing interval. In such patients, an increase in dosage or twice-daily administration should be considered if blood pressure is not controlled with VASOTEC alone, a diuretic may be added.

Concomitant administration of VASOTEC with potassium supplements, potassium salt substitutes, or potassium-sparing diuretics may lead to increases of serum potassium (see PRECAUTIONS).

**Dosage Adjustment in Hypertensive Patients with Renal Impairment:** The usual dose of enalapril is recommended for patients with a creatinine clearance  $>30$  mL/min (serum creatinine of up to approximately 3 mg/dL). For patients with creatinine clearance  $\leq 30$  mL/min (serum creatinine  $\geq 3$  mg/dL), the first dose is 2.5 mg once daily. The dosage may be titrated upward until blood pressure is controlled or to a maximum of 40 mg daily.


**Heart Failure:** VASOTEC is indicated as adjunctive therapy with diuretics and digitalis. The recommended starting dose is 2.5 mg once or twice daily. After the initial dose of VASOTEC, the patient should be observed under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, Drug Interactions.) If possible, the dose of the diuretic should be reduced, which may diminish the likelihood of hypotension. The appearance of hypotension after the initial dose of VASOTEC does not preclude subsequent careful dose titration with the drug, following effective management of the hypotension. The usual therapeutic dosing range for the treatment of heart failure is 5 to 20 mg daily given in two divided doses. The maximum daily dose is 40 mg. Once-daily dosing has been effective in a controlled study, but nearly all patients in this study were given 40 mg, the maximum recommended daily dose, and there has been much more experience with twice-daily dosing. In addition, in a placebo-controlled study which demonstrated reduced mortality in patients with severe heart failure (NYHA Class IV), patients were treated with 2.5 to 40 mg per day of VASOTEC, almost always administered in two divided doses. (See CLINICAL PHARMACOLOGY, Pharmacodynamics and Clinical Effects.) Dosage may be adjusted depending upon clinical or hemodynamic response. (See WARNINGS.)

**Dosage Adjustment in Patients with Heart Failure and Renal Impairment or Hyponatremia:** In patients with heart failure who have hyponatremia (serum sodium  $<130$  mEq/L) or with serum creatinine  $>1.6$  mg/dL, therapy should be initiated at 2.5 mg daily under close medical supervision. (See DOSAGE AND ADMINISTRATION, Heart Failure, WARNINGS, and PRECAUTIONS, Drug Interactions.) The dose may be increased to 2.5 mg b.i.d., then 5 mg b.i.d. and higher as needed, usually at intervals of four days or more, if at the time the dosage adjustment there is not excessive hypotension or significant deterioration of renal function. The maximum daily dose is 40 mg.

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JOURNAL (ISSN 0030-1876) (USPS 285-000) is the official publication of the Oklahoma State Medical Association and is published monthly under the direction of the OSMA Board of Trustees at 601 Northwest Expressway, Oklahoma City, OK 73118. Second class postage paid at Oklahoma City, OK 73125. POSTMASTER: Send address changes to JOURNAL, c/o Oklahoma State Medical Association, 601 Northwest Expressway, Oklahoma City, OK 73118.

Subscription to the JOURNAL is included in membership dues. All other subscriptions are \$30 per year. Single issues are \$3 per copy, prepaid, subject to availability.

National advertising representative: State Medical Journal Advertising Bureau, Inc., 711 South Boulevard, Oak Park, IL 60302, phone (708) 383-8800.

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OKLAHOMA STATE MEDICAL ASSOCIATION

SEPTEMBER 1990

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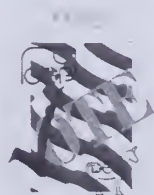
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**Laboratory Tests**—False-positive tests for urobilinogen with Multistix® may occur during therapy.

**Drug Interactions**—No interactions have been observed with theophylline, chloriazepoxide, lorazepam, lidocaine, phenytoin, and warfarin. Axid does not inhibit the cytochrome P-450 enzyme system; therefore, drug interactions mediated by inhibition of hepatic metabolism are not expected to occur. In patients given very high doses (3,900 mg) of aspirin daily, increased serum salicylate levels were seen when nizatidine, 150 mg b.i.d., was administered concurrently.

**Carcinogenesis, Mutagenesis, Impairment of Fertility**—A two-year oral carcinogenicity study in rats with doses as high as 500 mg/kg/day (about 80 times the recommended daily therapeutic dose) showed no evidence of a carcinogenic effect. There was a dose-related increase in the density of enterochromaffin-like (ECL) cells in the gastric oxyntic mucosa. In a two-year study in mice, there was no evidence of a carcinogenic effect in male mice, although hyperplastic nodules of the liver were increased in the high-dose males as compared with placebo. Female mice given the high dose of Axid (2,000 mg/kg/day, about 330 times the human dose) showed marginally statistically significant increases in hepatic carcinoma and hepatic nodular hyperplasia with no numerical increase seen in any of the other dose groups. The rate of hepatic carcinoma in the high-dose animals was within the historical control limits seen for the strain of mice used. The female mice were given a dose larger than the maximum tolerated dose, as indicated by excessive (30%) weight decrement as compared with concurrent controls and evidence of mild liver injury (transaminase elevations). The occurrence of a marginal finding at high dose only in animals given

an excessive and somewhat hepatotoxic dose, with no evidence of a carcinogenic effect in rats, male mice, and female mice (given up to 360 mg/kg/day, about 60 times the human dose), and a negative mutagenicity battery are not considered evidence of a carcinogenic potential for Axid.

Axid was not mutagenic in a battery of tests performed to evaluate its potential genetic toxicity, including bacterial mutation tests, unscheduled DNA synthesis, sister chromatid exchange, mouse lymphoma assay, chromosome aberration tests, and a micronucleus test.

In a two-generation, perinatal and postnatal fertility study in rats, doses of nizatidine up to 650 mg/kg/day produced no adverse effects on the reproductive performance of parental animals or their progeny.

**Pregnancy—Teratogenic Effects—Pregnancy Category C**—Oral reproduction studies in rats at doses up to 300 times the human dose and in Dutch Belted rabbits at doses up to 55 times the human dose revealed no evidence of impaired fertility or teratogenic effect, but, at a dose equivalent to 300 times the human dose, treated rabbits had abortions, decreased number of live fetuses, and depressed fetal weights. On intravenous administration to pregnant New Zealand White rabbits, nizatidine at 20 mg/kg produced cardiac enlargement, coarctation of the aortic arch, and cutaneous edema in one fetus, and at 50 mg/kg, it produced ventricular anomaly, distended abdomen, spina bifida, hydrocephaly, and enlarged heart in one fetus. There are, however, no adequate and well-controlled studies in pregnant women. It is also not known whether nizatidine can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Nizatidine should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

**Nursing Mothers**—Studies in lactating women have shown that 0.1% of an oral dose is secreted in human milk in proportion to plasma concentrations. Because of growth depression in pups reared by treated lactating rats, a decision should be made whether to discontinue nursing or the drug, taking into account the importance of the drug to the mother.

**Pediatric Use**—Safety and effectiveness in children have not been established.

**Use in Elderly Patients**—Healing rates in elderly patients were similar to those in younger age groups as were the rates of adverse events and laboratory test abnormalities. Age alone may not be an important factor in the disposition of nizatidine. Elderly patients may have reduced renal function.

**Adverse Reactions:** Clinical trials of varying durations included almost 5,000 patients. Among the more common adverse events in domestic placebo-controlled trials of over 1,900 nizatidine patients and over 1,300 on placebo, sweating (1% vs 0.2%), urticaria (0.5% vs <0.01%), and somnolence (2.4% vs 1.3%) were significantly more common with nizatidine. It was not possible to determine whether a variety of less common events was due to the drug.

**Hepatic**—Hepatocellular injury (elevated liver enzyme tests or alkaline phosphatase) possibly or probably related to nizatidine occurred in some patients. In some cases, there was marked elevation (>500 IU/L) in SGOT or SGPT and, in a single instance, SGPT was >2,000 IU/L. The incidence of elevated liver enzymes overall and elevations of up to three times the upper limit of normal, however, did not significantly differ from that in placebo patients. Hepatitis and jaundice have been reported. All abnormalities were reversible after discontinuation of Axid.

**Cardiovascular**—In clinical pharmacology studies, short episodes of asymptomatic ventricular tachycardia occurred in two individuals administered Axid and in three untreated subjects.

**CNS**—Rare cases of reversible mental confusion have been reported.

**Endocrine**—Clinical pharmacology studies and controlled clinical trials showed no evidence of antiandrogenic activity due to nizatidine. Impotence and decreased libido were reported with equal frequency by patients on nizatidine and those on placebo. Gynecomastia has been reported rarely.

**Hematologic**—Fatal thrombocytopenia was reported in a patient treated with nizatidine and another H<sub>2</sub>-receptor antagonist. This patient had previously experienced thrombocytopenia while taking other drugs. Rare cases of thrombocytopenic purpura have been reported.

**Integumental**—Sweating and urticaria were reported significantly more frequently in nizatidine- than in placebo-treated patients. Rash and exfoliative dermatitis were also reported.

**Hypersensitivity**—As with other H<sub>2</sub>-receptor antagonists, rare cases of anaphylaxis following nizatidine administration have been reported. Because cross-sensitivity among this class has been observed, H<sub>2</sub>-receptor antagonists should not be administered to those with a history of hypersensitivity to these agents. Rare episodes of hypersensitivity reactions (eg, bronchospasm, laryngeal edema, rash, and eosinophilia) have been reported.

**Other**—Hyperuricemia unassociated with gout or nephrolithiasis was reported. Eosinophilia, fever, and nausea related to nizatidine have been reported.

**Overdosage:** Overdoses of Axid have been reported rarely. If overdosage occurs, activated charcoal, emesis, or lavage should be considered along with clinical monitoring and supportive therapy. Renal dialysis for four to six hours increased plasma clearance by approximately 84%.

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## Truth or Consequences Encoded

Recently, the Medicare disruption of medical economics has evoked a spate of questionable practices in medicine. Physicians have invented devices that are aimed at increasing the cash flow but are untenable ethics. Ante-Medicare, most physicians built their practices through availability and effective service, but the new fashion is to increase cash flows by a creative study and manipulation of the CPT codes and procedure lists. Now organized practice management seminars study the highways and byways of successful "upcoding" of procedures. Considerable creative writing talent goes into a new style of operative report that details — and charges for — every scalpel stroke of the operation. Physician services formerly included in a procedure, and necessary for its proper completion, now are separately billed. Novel procedures are used for the principal purpose of developing CPT codes at higher prices. Two or three "co-surgeons" now operate on cases formerly done by one surgeon and an assistant.

Nowadays, certain CPT codes "you can get away with" changing to a higher paying code. Some diagnosis manipulation "will go through at (certain agencies)." "Unbundling" or procedure splitting "will usually get by at. . . ." "Polishing up" the operative report is "hard to catch by the insurance clerks."

It is all too easy to project blame on the government for these questionable practices, but unfortunately, they also signify a serious weakening of the moral integrity of the medical profession. The increasing number of physicians upgrading pay profiles by billing all the third party payer will tolerate has already cost our profession the right to negotiate like other US citizens. Accountants now determine reimbursement levels.

Sadly, an even more devastating effect of these practices is that they humiliate the sick patient into being a hostage to illness. With the pistol of an illness pointed at the head, the patient must pay a kidnaper's ransom for the needed procedures — and then resent the physician as an extortioner. Some physicians evade the moral issue by asserting the money

comes from insurance or government, but that is a self-centered, self-serving avoidance ploy. In their heart, everyone knows the money ultimately comes from the patient's tax or premium dollars.

The truly ethical and moral physician does not price procedures on a commercial concept of "what the traffic will bear." When using this mercenary idea, the learned professional is transformed into an alley mugger saying, "Your money or your life!" to a sick human being. And the patients defend themselves by turning fee negotiations over to the government, or an insurance company, or a union.

An ethical test is to price each procedure on the basis of the revenue produced as if a 40-hour week were spent repeatedly doing the one procedure, and then totaling the annualized income produced. If that annualized total — less expenses — is near the average annual income for the physician's specialty, the price is right. But if it makes the operator a millionaire in a year, patient exploitation is present. An occasionally done procedure cannot morally be expected to produce a normal income. Most patients would grant the expert physician a good living from a full-time, efficient practice. But procedure charges that would result in a million-dollar income on a 40-hour week cause significant resentment among patients and US politicians.

Without question, a new kind of reimbursement contract between patients, physicians, and government must now be negotiated to preserve the health care system. We physicians must reoccupy a moral position in the forthcoming evolution and deal with free citizens whom we will not exploit. "Upcoding" and "unbundling" and "padding the bill" are illegal, immoral, and unethical. We must live without them.

*Ray V. McIntyre, M.D.*



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## One Hundred Days

Since the Franklin Roosevelt presidency, new administrations have been judged in part on their first hundred days. All members of this association are at least as deserving of a report from the OSMA president covering the same time period.

On the national front we have made four trips to Washington addressing: (1) the 125% cap for 1991; (2) a single statewide reimbursement zone for Oklahoma; (3) an 80% floor on Medicare payment adjustments under the RBRVS practice cost adjustments; and (4) the Clinical Laboratory Improvement Act (CLIA) regulations. Our meetings included our Congressional delegation, their staffs, the Rural Health Coalition in the House, staff of the Senate minority leader, and HCFA administrator Gail Wilensky. We reached a tentative agreement with Dr Wilensky on the reimbursement zone issue and all members of our Congressional delegation have written her in support of our position. Other items are still being pursued.

Our association also was represented at the National Committee for Clinical Laboratory Standards (NCCLS) consensus conference on the CLIA regulations, and presented concrete data there about the enormous access problems patients would face in Oklahoma under the proposed rules. We have filed formal comments on the regulations on behalf of the association and have participated actively with other concerned national groups in attempting to have the proposed rules changed. Our association is only as strong as its members, and many of you commented to HCFA and to Congress — for which the entire country is grateful. While it is extremely difficult to forecast the final response of remote (and sometimes hostile) bureaucrats, I believe we will achieve our goals. All laboratories may be regulated, but ways will be found to keep them open.

Our delegation to the AMA Annual Meeting was extraordinarily successful, reflecting our delegation's numerical strength, the quality of the indi-



vidual delegates and alternates, and the leadership of our delegation's chairman, Dr Joe Crosthwait. We secured clear AMA policy to seek an 80% floor on geographic cost factors under the RBRVS. We obtained authorization from the House for patient-centered public relations efforts. In fact, all of our resolutions were adopted — an impressive change from the 1970s! Sherry Strebel of Oklahoma City was installed as president-elect of the AMA Auxiliary, and your president was honored to be selected as vice-chairman of the AMA's Council on Medical Service. Clearly, Oklahoma has developed a major role in the establishment and overseeing of AMA policy.

In Oklahoma, we made a number of organizational changes that we hope will benefit each of you in the long term.

All appointments to councils and committees were carefully reviewed and changes made in light of explicit policy considerations. First, as always, careful attention was given to an appropriate mix of individuals from every geographic area of the state. No voice shall go unheard. Second, we reviewed the tenure of individuals on committees, their attendance records, and their relative contributions. In an association, the health of any activity depends upon a steady influx of new individuals from whom the future leadership of the association will be drawn. To make room for those individuals, some physicians with long service and outstanding contributions were removed, along with those who did not contribute. The Council on Long Range Planning and Development will be charged with formulating formal tenure policies so that this relatively painful process can be approached more systematically. Finally, to fill open positions, we appointed more young physicians and women physicians than the organization has experienced historically. We wish them well in their opportunity for service — we will depend upon their leadership in the years to come.

After considerable discussion and a number of false starts, we have created a formal "field representative" for the association. This position, filled by the talented Robert Baker, is to serve both as a member

of the association's staff for general and representational duties and as the association's representative to unstaffed county societies statewide.

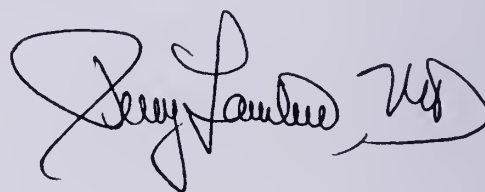
We have created several new committees. A Committee on Women in Medicine will explore those issues which we must address to make the association as important to women as they are to our future. Dr Rebecca Tisdal is the chair and is off to an impressive start. An ad hoc committee to work with Aetna on the RBRVS conversion has been appointed. Composed of physicians with extensive experience in coding, medical payments, and Medicare relations, it is our best hope of a reasonably trouble-free conversion (unlike the experience suffered nationally by radiologists in their conversion). A new subcommittee of the Physician Recovery Committee has been formed to place the association in the forefront of the drug abuse effort of our communities. It also will serve as the focal point of activity in Oklahoma for the joint AMA/ABA drug abuse program. Finally, we have structured a new committee to investigate and potentially implement a statewide communications program with our state's citizens dealing primarily with Medicare issues.

We are investigating possible responses to two medical problems in Oklahoma, maternal and child health in various locations and the provision of medical services to the aged poor.

Your officers and staff have continued meeting with the media and appearing on KTOK opinion segments in the Oklahoma City radio market. We were pleased to see front page headlines in the *Daily Oklahoman* and lead editorials in Tulsa papers on the clinical laboratory regulations. These had impact! We also have met with county societies in the state and will continue to do so when asked.

Throughout all of this, the outstanding services our organization provides have continued nonstop, thanks to our dedicated and capable staff.

Nothing makes time go by more rapidly than being busy. The first hundred days have disappeared in a millisecond!

A handwritten signature in black ink, reading "Jerry Lane, MD". The signature is stylized with a large, looping "J" and "L", and the "MD" is written in a smaller, more compact script to the right.



# Human Growth Hormone and Creutzfeldt-Jakob Disease

Susan Zekauskas, RN, MSN; Mary Beth Boggs, RN; Don P. Wilson, MD

For more than 20 years cadaver-derived human growth hormone (HGH) was used successfully to enhance linear growth in short children. In 1985 the US Food and Drug Administration (FDA) stopped use of the hormone in response to reported deaths due to Creutzfeldt-Jakob (CJD) agent in 3 former HGH recipients. To date, a total of 9 patients have been identified who both received HGH and became infected with CJD agent (7 in the United States, 1 in Britain, and 1 in New Zealand).<sup>1</sup> Circumstances make it likely that HGH contaminated with a slow growing, viral-like particle may have been responsible for these fatalities.

In Oklahoma at least 60 children and adolescents previously received HGH and are potentially at risk of developing CJD. It is important that health care providers responsible for the care of these individuals be aware of this fatal illness and remain informed of new developments in the field.

## What Is CJD?

Creutzfeldt-Jakob disease is a fatal neurologic disease caused by a particle similar to a virus.<sup>2</sup> Unlike most viral infections, however, a person exposed to CJD may harbor the agent for many years before becoming ill. Thus the disease is often referred to as a "slow viral" infection.

The disease process is confined to the central nervous system and is most prevalent in the cortical gray matter. Deeper nuclei of the basal ganglion, the hypothalamus and the cerebellum also are af-

fected. The corticospinal pathways degenerate. Inflammatory cells are conspicuously absent. Astrogliosis becomes prominent within areas of spongiform degeneration.<sup>3</sup>

The morphologic picture of CJD is quite similar to that of scrapie, a disease of sheep. This well-studied animal model is transmitted by inoculation of infected tissue followed by a prolonged incubation period of a year or more.

In the vast majority of cases, the mode of transmission of CJD in humans is unknown. Potential sources of transmission include surgical procedures, particularly those necessitating tissue grafts, such as corneal transplants, dural grafts, blood transfusions, and insertion of intracerebral electrodes. The infectious agent has been found in urine and other body secretions of asymptomatic individuals.

Transmission by casual contact or sexual intercourse is not thought to occur. Infected suspensions of human brain tissue have caused prominent neurologic abnormalities 10 to 14 months after intracerebral inoculation in chimpanzees.

Although a protein has been isolated in the cerebral spinal fluid of symptomatic individuals, at present there is no test that can determine whether a healthy person is incubating the disease.

CJD is characterized by a broad spectrum of neurologic disturbances affecting both cognitive and motor function. Personality changes include erratic and aggressive behavior, confusion, progressive memory loss, and dementia. Loss of muscular coordination, tremor, and rigidity are often present. Vision may be diminished and speech slurred. Since the signs and symptoms of CJD are severe and progressive, commonly encountered complaints such as

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headaches, transient irritability, clumsiness, and forgetfulness should be of limited concern. In most affected individuals, the symptoms of CJD are rapidly progressive over a period of months. Invariably death ensues, usually within a year of onset.

### The Oklahoma Experience

Oklahoma has two university-based programs that, in the past, have been responsible for the care and treatment of a large number of short children. Both institutions previously participated in treatment and research programs sponsored by the National Hormone and Pituitary Agency, a branch of the National Institutes of Health. As a result of these programs, several children and adolescents were treated. Commercial sources of human growth hormone of cadaver origin were available as well.

Human growth hormone was obtained from pituitary glands harvested from cadavers. The hormone was extracted from batches of pituitaries and purified. The lyophilized powder was reconstituted with bacteriostatic water and administered by intramuscular injections. The dose and frequency of administration varied.

A retrospective review of clinic and hospital records identified 60 Oklahoma children and adolescents who previously received injections of human growth hormone. This is likely an underestimation of the population at risk since HGH also was available through commercial sources. Although some had hypothalamic and/or pituitary destruction secondary to trauma or neoplasm, the majority of treated children and adolescents had idiopathic growth hormone deficiency. Treatment was initiated at a mean age of 10.7 years, ranging from 1.8 to 19 years. The period of treatment was from August 1969 until the drug was withdrawn in 1985.

### Notification

Recipients of cadaver-derived HGH and their families have been notified of the possible contamination. Individual and group counseling was undertaken to review the compiled data and discuss the decision to stop production and distribution of the drug, based on available evidence. All patients have been enrolled in a nationwide, long-term follow-up program under the auspices of the Centers for Disease Control, National Institutes of Health, and the Federal Drug Administration. This program serves to keep each individual informed of recent developments and is attempting to document additional cases.

### Recommendations

No changes in day-to-day living, health habits, interaction with family members, or sexual activity are currently suggested for former HGH recipients.<sup>4</sup> These individuals should be prohibited from donating organs or tissues for transplantation because of the inability to test for infection with CJD. Blood banks do not accept donations from former HGH recipients. Healthcare workers involved in the care of these patients should observe standard precautions, protecting themselves from exposure to body fluids and tissues.

Growth hormone can now be manufactured using DNA recombinant technology, eliminating the need for human sources. Synthetic growth hormone is approved for use and currently available from commercial sources. Former HGH recipients who still require treatment and all new patients in need of growth hormone therapy can safely be treated with synthetic growth hormone.

### Conclusion

In the past, human growth hormone of cadaver origin was successfully used to enhance the linear growth of growth-hormone-deficient children. Because HGH may have been a vehicle for transmission of CJD, its use has been suspended. Although specific risk figures are not known, patients previously receiving injections of human growth hormone are at risk for developing and/or transmitting this fatal disease. Diagnostic tests and treatment are currently not available. Any patient presenting with symptoms of CJD and a history of prior use of HGH should be investigated. Autopsy studies may help document additional cases and contribute to our knowledge of this catastrophic event.

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# Experience with Cardiorespiratory Support Devices in Patients Undergoing Heart and Heart-Lung Transplantation

A. Tamez, MD; D.K.C. Cooper, MD, PhD; D. Novitzky, MD; J.S. Chaffin, MD;  
A.E. Greer, MD; N. Zuhdi, MD

During the 2-year period 1987 through 1988, 124 patients were assessed for heart or heart-lung transplantation. Sixty were accepted for heart transplantation, of whom 49 received transplants. Nine required pretransplant intra-aortic balloon pump support (+/- positive-pressure ventilation) for periods ranging from 2 to 15 days (mean 5 days). One patient was supported successfully by a pneumatic biventricular assist device for 70 days pretransplant. The 30-day survival in this group of 10 critically unstable patients was 100% and the 6-month survival 90% (one death). This experience compares well with survival rates of 100% at 30 days and 92% at 6 months in the 39 patients who required no form of pretransplant circulatory support. The biventricular assist device also has been used in 2 other patients; one did not survive to transplant and the other was deemed unsuitable by virtue of cerebral injury. Extracorporeal membrane oxygenation supported 2 posttransplant patients (one heart and one heart-lung) with grossly impaired pulmonary function for periods of 5 and 2 days respectively, but both died before lung function had recovered.

There are now a number of mechanical devices for the assistance of cardiac and/or respiratory function. Several of these devices have proved of value in heart transplantation programs.

Positive-pressure ventilation is clearly standard therapy in the early postoperative period, and may oc-

asionally be essential to maintain a potential recipient before a suitable donor heart becomes available. The intra-aortic balloon pump (IABP)<sup>1</sup> is similarly now well established in supporting a failing heart while a potential recipient awaits a suitable donor; it also may be of value in the early posttransplant period if donor heart function is less than adequate or if severe acute rejection intervenes. There is a growing experience with mechanical biventricular assist devices,<sup>2-4</sup> as there is with the total artificial heart, in the support of patients awaiting transplantation. Extracorporeal membrane oxygenation (ECMO)<sup>5</sup> is a form of cardiorespiratory support that has been used on a small scale over a number of years, but its value in maintaining patients with cardiorespiratory failure either before or after transplantation remains uncertain.

We briefly report our experience during the 2-year period, January 1987 through December 1988, in heart and heart-lung transplantation. During this period, a total of 124 patients were assessed for either heart ( $n = 110$ ) or heart-lung ( $n = 14$ ) transplantation, of whom 67 were accepted for transplantation (60 for heart and 7 for heart-lung).

## Patients

Of the 7 patients accepted for heart-lung transplantation, 5 were transplanted during this 2-year period, and 2 died awaiting a suitable donor.

Of the 60 patients accepted for heart transplantation, a total of 49 underwent transplantation (Table 1). Of the remaining 11, 3 improved to the point that transplantation was no longer necessary (with prob-

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**Table 1. Outcome of 60 Patients Accepted for Heart Transplantation from January 1987 through December 1988**

Outcome	n	(%)	IABP Support (%)
Transplanted	49	(82%)	10 (20%)
Died awaiting donor	5	(8%)	2 (40%)
Improved without transplant	3	(5%)	1 (33%)
Complications prevented transplant	2	(3%)	1 (50%)
Awaiting donor	1	(2%)	0
Total	60	(100%)	14 (23%)

able viral myocarditis); all 3 remain alive and well to date. Seven either died while awaiting transplantation ( $n=5$ ) or were deemed no longer suitable after the development of some further complication ( $n=2$ ). One patient was still awaiting a suitable donor at the end of the period of study. Of these 11 patients, 4 required IABP support for periods of 1 to 31 days, one of whom recovered and 3 of whom either died before transplant or were deemed unsuitable.

Of the 49 patients who underwent transplantation, 10 required IABP while awaiting a donor, and 3 of these required additional positive-pressure ventilation. In one patient, IABP support was clearly insufficient to support the circulation, and she went on to require implantation of a biventricular assist device.

Two further patients, not yet assessed and therefore not yet accepted for transplantation, had implantation of a biventricular assist device when deteriorating extremely rapidly; neither went on to transplantation as one died soon after and the other was deemed unsuitable by virtue of cerebral injury.

Two donor hearts required very brief periods of IABP support immediately after transplant; neither patient had required such support before transplant.

Two patients (1 heart and 1 heart-lung) required respiratory support after transplant by ECMO.

### **Intra-Aortic Balloon Pump Support**

**Pretransplant.** Intra-aortic balloon pump (IABP) support<sup>1</sup> was required in 14 patients who were experiencing increasing left or biventricular failure despite maximal inotropic therapy while in an intensive care unit. One patient recovered adequate myocardial function and was taken off the transplant list. Three patients died or became unsuitable for transplantation by virtue of complications, eg, renal failure. Ten patients were subsequently transplanted. One of these 10 patients went on to require

pretransplant biventricular assist device implantation after 3 days of IABP support.

The length of IABP support in the remaining 9 patients ranged from 2 to 15 days with a mean of 5 days (median 5 days). There were no pretransplant complications related to the IABP except two infectious episodes, a staphylococcal septicemia and a proteus infection at the balloon insertion site. Three of these patients also required positive-pressure ventilation for periods of 2 to 15 days, with a mean of 7 days.

Details of these 9 patients are shown in Table 2, together with similar information on the 39 patients who underwent heart transplantation but who did not require prior IABP support. There are no significant differences between these 2 groups with regard to (1) sex ratio, (2) age, or (3) incidence of previous cardiac surgery; there was a slightly higher incidence of underlying cardiomyopathy in those requiring IABP support.

IABP support was discontinued at the time of heart transplantation in all cases. The posttransplant hospital stay of these 9 patients ranged from 15 to 58 days, with a mean of 24 days. This was insignificantly different from the hospital stay of those patients who had not required IABP support (range 9 to 87 days, with a mean of 22 days) (Table 2).

The 30-day survival in both groups was 100%. The 90-day survival was 89% in the IABP group and 97% in the non-IABP group (Table 2). The six-month actual survival remained at 89% in the IABP group and was 92% in the non-IABP group. Three of the 9 patients who required IABP support also required positive-pressure ventilation, and it was one of these who died at 51 days after transplantation; there were no other deaths in this group. There were 3 deaths within the first 6 months in the non-IABP group (1 at 87 days and 2 between 4 and 6 months). Survival in the 2 groups was therefore not significantly different.

**Posttransplant.** In 2 patients, neither of whom was supported by an IABP prior to transplant, donor heart function was less than perfect immediately after transplantation, and IABP support was provided for periods of one and 6 hours respectively, during which time donor heart function recovered satisfactorily. Both patients remain alive and well one year later.

### **Ventricular Assist Device**

We have available the Thoratec (Pierce-Donachy) mechanical assist device, which can be used for right, left, or biventricular support, for which we are one of



**Table 2. Clinical Details of 9 Patients Requiring Intra-Aortic Balloon Pump (IABP) Support and 1 Requiring Biventricular Assist Device (BVAD) Support Before Heart Transplantation, and 39 Patients Not Requiring Such Support**

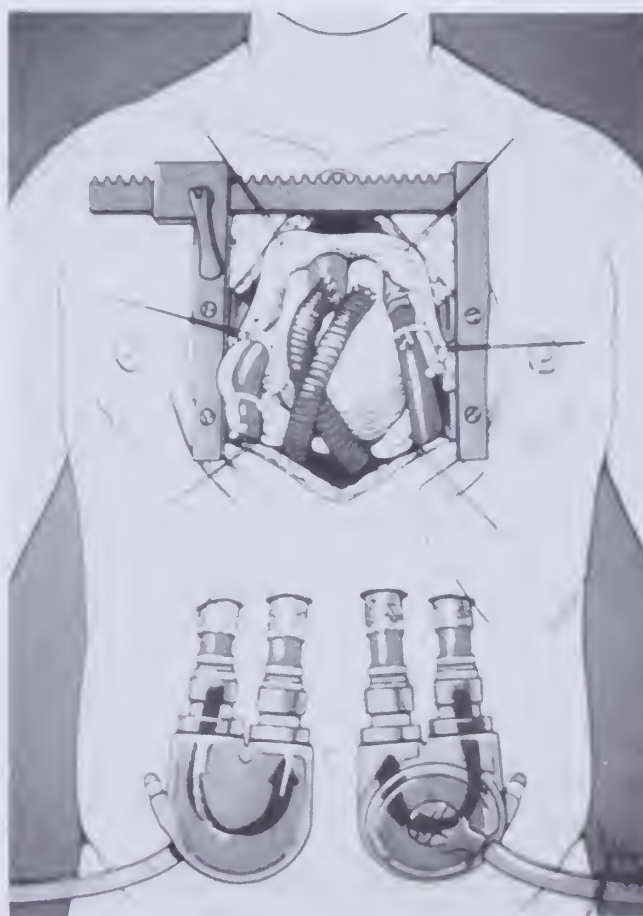
Group	n	Sex	Mean Age (years)	Previous Cardiac Surgery	Underlying Pathology	Mean Posttransplant Hospital Stay (days)	Actual Survival (months) 1m/3m/6m
IABP	9	8M (89%) 1F (11%)	51	6 (67%)	5 IHD (56%) 4 CM (44%)	24	9 (100%) / 8 (89%) / 8 (89%)
BVAD	1	F	20	—	CM	84	1 / 1 / 1
No IABP	39	33M (85%) 6F (15%)	53	23 (59%)	26 IHD (67%) 9 CM (23%) 4 Other (10%)	22	39 (100%) / 38 (97%) / 36 (92%)

M = male, F = female, IHD = ischemic heart disease, CM = cardiomyopathy

20 FDA-approved investigation centers. This device has been well described previously.<sup>2</sup> In brief, it is a pneumatically powered system with inflow and outflow Bjork-Shiley valves that ensure blood flow from the right atrium to the pulmonary artery and from the left atrium to the aorta. A right-sided or left-sided support system can be inserted, though most patients require both systems (Fig 1). Our experience with this device has been limited to 3 pretransplant patients.

In 2 cases, the device was inserted as an extreme emergency measure in patients who were deteriorating rapidly; it was hoped that they could be hemodynamically stabilized to allow full assessment for transplantation. One had undergone aortic valve replacement on the previous day, and the second suffered sudden circulatory decompensation following a massive myocardial infarction. In the former case, the device functioned satisfactorily, but uncontrollable coagulopathy developed and the patient died within a few hours. On the second occasion, again the device functioned well but the patient had suffered a brain insult during the period of low cardiac output before and during insertion of the device; brain death ensued and the device was withdrawn.

The third patient, a 20-year-old woman with postpartum cardiomyopathy, had already been assessed and accepted for heart transplantation, but showed steady hemodynamic deterioration to the point that it was necessary to insert an IABP. After 3 days, it was clear that further deterioration was occurring; the IABP was not providing adequate circulatory support and the patient was beginning to develop features of renal failure. The ventricular assist device was inserted and functioned extremely satisfactorily for a period of 10 weeks, at which time a suitable donor became available; the patient underwent heart transplantation with removal of the device. The great delay in obtaining a suitable donor was partly a re-



**Figure 1.** The Pierce-Donachy Thoratec ventricular assist device being used for biventricular assistance with cannulation of the right and left atria and of the aorta and pulmonary artery. Blood flow is from the right atrium through one pump to the pulmonary artery, and from the left atrium through the other pump to the aorta.

sult of the development of lymphocytotoxic antibodies, thought to be related to multiple blood transfusions that were required to maintain an adequate hemoglobin during this 10-week period, the recurrent fall in red cell mass being due to hemolysis.

The patient's posttransplant progress was initially complex and complicated. She clearly suffered a small cerebral embolus at the time of transplantation, probably as a result of dislodgement of small thrombi that had developed within the assist device; fortunately, she recovered fully. She also developed an acute abdomen that required laparotomy, and the cause of which was never completely clear. Gross ascites of unknown cause persisted for several weeks, but eventually resolved. She was discharged from the hospital some 12 weeks after transplantation; at one year, she remained active and well.

### Extracorporeal Membrane Oxygenation

Extracorporeal membrane oxygenation (ECMO) can be valuable as a short-term means of respiratory support.<sup>5</sup> We have used such a system in 2 posttransplant patients who were rapidly developing severe respiratory failure despite maximum positive-pressure ventilation.

The first patient had undergone a technically successful heart-lung transplantation some 24 hours previously, exhibited initially good pulmonary function, and was able to be weaned from the ventilator within this period of time. He then suffered a severe reimplantation response of the lungs,<sup>6</sup> developing complete opacities of both lungs on the chest radiograph, with rapidly falling  $\text{PaO}_2$  and  $\text{O}_2$  saturation and increasing  $\text{CO}_2$  retention.

In the hope that the reimplantation response would resolve within a short period of time, the patient was placed on ECMO, which satisfactorily oxygenated him for 5 days. Unfortunately, there was no significant recovery of the lungs during this time, and the need to fully anticoagulate him with heparin led to increasing bleeding, particularly from the gastrointestinal tract but also into the retroperitoneal space. ECMO had to be discontinued; the patient deteriorated and died within a few hours.

The second patient, who had undergone heart transplantation for cardiomyopathy some 4 months previously, developed septicemic shock accompanied by an adult respiratory distress-like condition that was thought to be entirely due to a proven Gram-negative septicemia. Maximal ventilation proved inadequate to support his respiratory function. In an effort to support him while antibiotic therapy overcame the septicemia, he was placed on ECMO, but he continued to deteriorate and died after 2 days' support. At autopsy, a widespread pneumocystis pneumonia was found, which had not been suspected or diagnosed.

### Discussion

This study confirms that satisfactory results can be obtained from heart transplantation in patients who are in severe circulatory decompensation before transplantation, and who require IABP support to sustain life. The early (30-day) survival in 10 patients at our center who required pretransplant IABP or BVAD support was 100%, as it was in those who did not require such support. The 3- and 6-month survivals also were similar in both groups (90% at both time intervals in the supported group, and 97% and 92% at 3 and 6 months respectively in the nonsupported group). Despite the fact that their status prior to transplant was critical, the supported patients demonstrated no increased early or late mortality. Furthermore, their posttransplant stay in the hospital was no more complicated or prolonged than that of patients who did not require pretransplant IABP support (Table 2).

An example of what can be achieved by an aggressive approach to support of a patient who is suitable for transplantation but is undergoing rapid circulatory decompensation is provided by one 45-year-old patient in our series. This man, who had undergone a previous myocardial revascularization procedure, was admitted by a cardiologist colleague as an emergency, having suffered a massive myocardial infarction. In an effort to salvage some myocardium, we performed percutaneous balloon angioplasties of significant proximal stenotic lesions in the left anterior descending (LAD) and circumflex coronary arteries. These were initially successful, but within a short period thrombus developed in the tight LAD lesion, and the patient suffered circulatory collapse. Rapid insertion of femoral artery and venous cannulae allowed pump-oxygenator support to be provided in the catheter laboratory. The patient was stabilized and transferred immediately to the operating room, where he underwent triple coronary artery bypass grafts. Subsequent cardiac function remained extremely poor, however, and he could only be weaned from pump-oxygenator support with the help of an IABP and considerable inotropic agents. He returned to the intensive care unit supported by the IABP and positive-pressure ventilation.

He was assessed for possible heart transplantation and found to be an acceptable candidate despite developing adult respiratory distress syndrome. A suitable donor heart was not obtained for 15 days, during which time the patient remained dependent on IABP and ventilator support. Immediately after transplant, the IABP was withdrawn, and sub-



sequently the patient was weaned from the ventilator. He was discharged from the hospital after 21 days and returned to full-time employment 2 months later. He remains alive and well almost one year later.

The study also draws attention to the continuing shortage of suitable donors even for those patients who are critically ill prior to transplant. Two patients died while awaiting transplantation despite IABP support, even though they were classified as most urgent in the national organ procurement network (UNOS).

Our experience with the biventricular assist device is clearly limited, but the one patient who was satisfactorily supported for a period of 10 weeks demonstrates that this device can be of immense value in highly selected patients who are awaiting a donor heart. Its value as a means of support in patients who are deteriorating extremely rapidly remains less certain, but it might provide adequate support while the patient's suitability for transplantation is assessed fully. The device used at our center (Pierce-Donachy Thoratec pump) has been described in detail and the overall national results documented elsewhere.<sup>2-4</sup> Approximately 70% of patients supported by this device have been able to undergo transplantation, and of these, the one-year survival is a further 70%;<sup>3,4</sup> thus, the ultimate overall one-year survival of the original supported patients is approximately 50%.

Our results using extracorporeal membrane oxygenation following transplantation have been disappointing, though again our experience is limited. It would seem, nevertheless, that in patients with rapidly developing respiratory failure that is believed to be reversible, ECMO should be considered as a means of temporary support. The problem of bleeding, however, appears to increase daily, and therefore the length of time that can be obtained with this means of support seems to be limited. Even in centers with more extensive experience, the results have been mixed, and the salvage rate of such patients has been limited.<sup>5</sup>

A review of the overall results of patients undergoing heart transplantation at our center during this

2-year period is encouraging, with no operative mortality, and no mortality at 30 days. Actual 3- and 6-month survival was 96% and 92% respectively. Late deaths were related mainly to infection or to complications of conditions that were present in the patient before transplantation. The overall actuarial 1-year survival of 89% remains above the national and international average of 78% as reported by the International Society for Heart Transplantation.<sup>7,8</sup>

As a result of this review, we believe that patients supported by an intra-aortic balloon pump or a ventricular assist device are acceptable candidates for heart transplantation as long as their other essential organ functions remain satisfactory. The early and late results of transplantation in such patients appear to be good. **J**

#### Acknowledgments

We wish to thank the many members of the medical, nursing, and paramedical staff of Baptist Medical Center who have contributed to the care of these patients.

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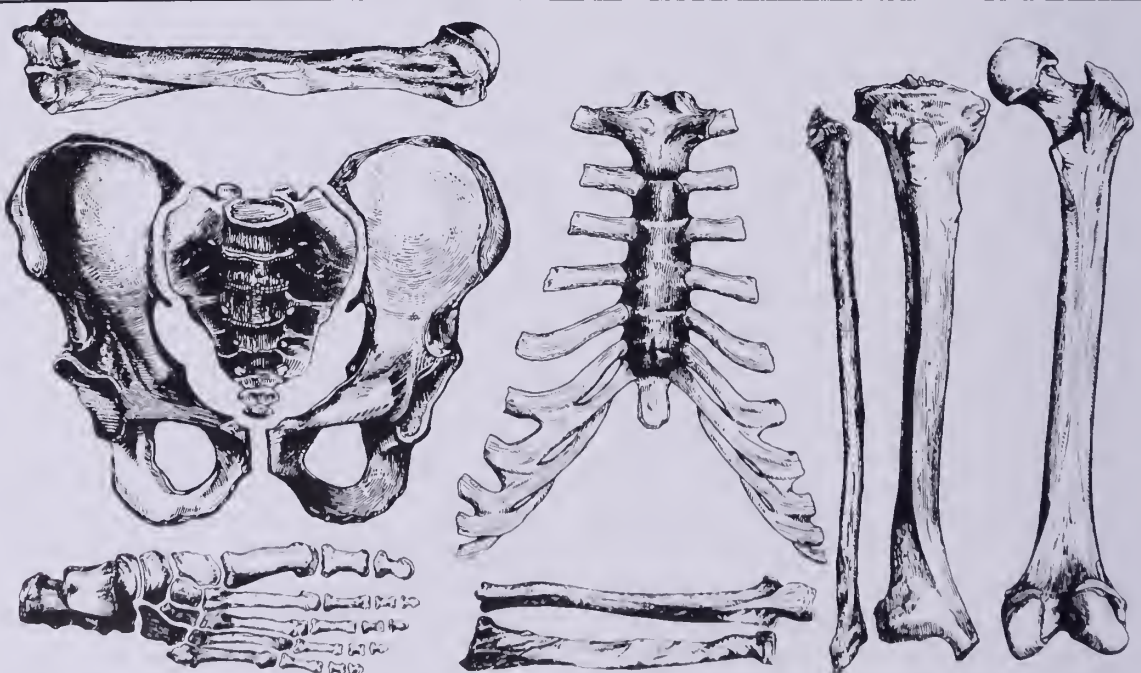
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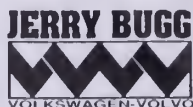
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*Desiderata: Anesthesia***PLICO changes anesthesia rules to include newest techniques**

The Physicians Liability Insurance Company (PLICO) Board of Directors has amended its anesthesia desiderata to provide for pulse oximeter and end-tidal CO<sub>2</sub> analysis monitoring, reports the July issue of *PLICO News*.

Recent policies adopted by the American Society of Anesthesiologists prompted the change in section 4 of the PLICO desiderata, which apply to all PLICO policyholders regardless of their specialty or the location of the anesthetizing site; all forms of managed anesthesia and/or sedation techniques are included.

The PLICO desiderata on anesthesia, adopted in 1986, now read as follows:

**Desiderata: Anesthesia**

In order to promote optimum patient care to improve the liability climate in the practice of anesthesia, the PLICO Board of Directors recommends these desiderata:

1. An orderly preoperative anesthetic risk evaluation is to be done by the responsible physician and recorded on the chart in all elective cases, and in urgent emergency cases, the anesthetic evaluations will be recorded as soon as feasible.
2. Every patient receiving general anesthesia, spinal anesthesia, or managed intravenous anesthesia, (ie, local standby or monitored anesthesia) shall have arterial blood pressure and heart rate measured and recorded at least every five minutes where not clinically impractical, in which case the responsible physician may waive this requirement stating the clinical circumstances and reasons in writing in the patient's chart.
3. Every patient shall have the electrocardiogram continuously displayed from the induction or institution of anesthesia until termination thereof, where not clinically impractical, in which case the responsible physician may waive this requirement stating the clinical circumstances and reasons in writing in the patient's chart.
4. *During all anesthetics, patient oxygenation will be continuously monitored with a pulse oximeter, and, whenever an endotracheal tube is inserted, correct positioning in the trachea and function will be monitored by end-tidal CO<sub>2</sub> analysis (capnography) throughout the time of placement.*
  - a. Additional monitoring for ventilation will include palpation or observation of the reservoir breathing bag, and auscultation of breath sound.
  - b. Additional monitoring for circulation will include at least one of the following: Palpation of the pulse, auscultation of

heart sounds, monitoring of a tracing of intra-arterial pressure, pulse plethysmography, or ultrasound peripheral pulse monitoring.

5. When ventilation is controlled by an automatic mechanical ventilator, there shall be in continuous use a device that is capable of detecting disconnection of any component of the breathing system. The device must give an audible signal when its alarm threshold is exceeded.
6. During every administration of general anesthesia using an anesthesia machine, the concentration of oxygen in the patient's breathing system will be measured by a functioning oxygen analyzer with low concentration audible limit alarm in use.
7. During every administration of general anesthesia, there shall be readily available a means to measure the patient's temperature.

These desiderata apply for any administration of anesthesia, including general, spinal, and managed intravenous anesthetics, (ie, local standby or monitored anesthesia) administered in designated anesthetizing locations.

In emergency circumstances in any situation, immediate life support measures can be started with attention returning to these monitoring criteria as soon as possible and practical. ¶

**OKC physician graduates*****Child abuse prevention course enlightens several professions***

Murray Matthew, MD, Oklahoma City, was among the recent graduates of a graduate-level training program designed to combat child abuse.

The Interdisciplinary Training Program in Child Abuse and Neglect was conducted at the University of Oklahoma Health Sciences Center through the Department of Pediatrics. Begun in 1987 with a \$460,000 grant from the National Center on Child Abuse and Neglect, it is one of only ten such university-based programs in the country.

Dr Matthew's class of 16 included students from the fields of medicine, law, public health, educational psychology, and social work and brings to 30 the number of graduates in the last two years.

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## OUHSC program *(continued)*

campuses in Norman, Oklahoma City, and Tulsa serve as instructors for the program. Students attend evening seminars throughout a nine-month period during which they are provided experiences within specific disciplines, as well as cross-discipline training to help them become aware of the roles of other professionals in the area of child abuse and neglect.

"The program is designed to provide future leaders in the field of child abuse and neglect — in clinical practice, research, administration, and prevention settings," says Dr Barbara Bonner, associate program director and assistant professor of psychiatry.

For enrollment information, call (405) 271-8858.

□

## *Even modest reductions useful*

### Study bolsters case for reducing weight to lower blood pressure

More evidence is in regarding the benefits of weight loss in overweight men and women: besides other health benefits, a report in August's *Archives of Internal Medicine* says weight loss also leads to lower blood pressure.

David E. Schotte, PhD, and Albert J. Stunkard, MD, of the Baylor College of Medicine, Houston, found those patients who lost a mean of 22.8 pounds (plus or minus 8 pounds) also dropped their systolic and diastolic blood pressures significantly. The study of 301 obese white men and women also found that the patients lost the most amount of weight (and had the greatest decline in blood pressure) during the first half of their diet regimens, the authors write. Overall, patients regained at average of 6.8 pounds during followup. And the authors found those who regained weight also saw their blood pressure rise again. The patients ranged in age from 19 to 69 years and all were at least 20% above their ideal body weights.

The latest study confirms findings of previous investigations. The method of weight loss was not important in relation to blood pressure improvements, the authors wrote; rather, the amount of weight lost was the critical factor.

"The rate at which blood pressure decreased was greater during the first half of weight loss, indicating that blood pressure reductions can be achieved rapidly with modest reductions in weight," the authors conclude.

□



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## Radio controlled helicopters keep physician's spirits flying high

**W**hen it is a nice day for flying, you probably will find Edward A. Abernethy III, MD, flying a helicopter. But the Enid general surgeon and OSMA member won't be in the machine; he'll be on the ground and in control of the helicopter by radio. For Dr Abernethy flies miniature helicopters and airplanes by radio remote control as a hobby.

Ideal flying weather is above 50°F with no wind, and while Enid has many days above 50°, few are windless. So Dr Abernethy has had to learn to fly with the wind blowing. The little planes and helicopters are difficult to fly at best, and Dr Abernethy (often called Sandy by his friends) says it requires total concentration. Daily cares and worries are put aside for the time of flying, and Sandy characterizes the hobby as a "total diversion."

Dr Abernethy is a member of an Enid club of model flying enthusiasts that leases a plot of country land northeast of town for the sport. On weekends twenty or so club members meet informally and exercise their flying machines. A complex industry has developed to supply the hobbyists with precision-engineered machines and parts and the radio control gear. Also, there are many similar clubs scattered about the country, and interclub meets and "flyins" are common.


Dr Abernethy's children, 17-year-old Amy, 13-year-old Sarah, and 9-year-old David only rarely go with him to the flying ground. The flying is a difficult skill to master, and Sandy says it "is not a spectator sport." His wife, Anne, usually accompanies him, and often spends the time reading.

Dr Abernethy began his interesting hobby many years ago during his internship and has found it so engaging that he "goes whenever he can." He presently has two different models of helicopters, the larger weighing 11 pounds with a 54" rotor span and the smaller weighing 4 pounds with a 40" rotor. The machines will fly at 50 to 60 mph, and are capable of maneuvers not possible with real helicopters. For example, the model helicopters can do aerobatics,



Dr Edward Abernethy proudly displays one of his favorite radio-controlled helicopters.

loops, and even fly upside down. While the radio signal has a range of about two miles, Sandy notes that it is necessary to remain in visual contact during flights, and this limits the practical range to about 800 feet.

When the weather is fit for flying, and Sandy Abernethy is off duty, you may find him figuratively up in the air with one of what he calls his "fascinating mechanical marvels." 

### Coming next month

Manuscripts being prepared for publication next month include a paper on adolescent drug and alcohol abuse, an overview of mental retardation, and another commentary by Dr William P. Truels.



## Single Unit Transfusions

By William P. Truels, MD

If you ever want to get into hot water at Holy Christian Hospital, try ordering a single unit blood transfusion. That may sound like a fairly safe thing to do, but let me explain the problem.

Dale K. was in a car accident and was admitted through Holy Christian Emergency Trauma Center. He was placed under close observation to rule out signs of internal bleeding. The next day his hemoglobin was 9.1 grams and, even though he wasn't actively bleeding, he had nevertheless sustained a significant blood loss. I ordered a unit of blood to be given that morning. About an hour later, I got a call from Dr Taylor Red, the blood bank director.

"Bill," Taylor begins, "we've got a problem." Taylor

is a very diplomatic sort of chap, like most pathologists, and whenever Taylor says "we've got a problem," what he really means is "you've got a problem!"

"What's wrong, Taylor?" I asked. "Does my patient have a rare blood type?"

"No, nothing like that, Bill," Taylor replied. "It's just that your patient has a hemoglobin of 9.1 grams, and the AABB doesn't recommend giving blood unless the hemoglobin is less than 9.0 grams."

"Who's the AABB?" I asked.

"The American Association of Blood Banks," Taylor answered. "With all the problems associated with blood-borne diseases such as hepatitis, malaria, and AIDS, the AABB recommends not giving blood to someone whose hemoglobin is above nine grams — sort of a precaution, I guess you'd say."

"Sounds like a good idea to me, Taylor," I responded. "I'll hold off on giving any blood unless the hemoglobin drops below 9.0 grams."

My patient, Dale K., continued stable, and next morning, when I made rounds, he was able to talk to me for the first time, despite his multiple fractured ribs. He did look somewhat pale, however, and his

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hemoglobin that morning had fallen to 8.9 grams.

I decided to discuss the problem with my patient. "Dale, you've lost about one fourth of your blood as a result of the accident," I told him. "The safest course of action would be to give you a blood transfusion."

When I mentioned the words *blood transfusion*, Dale's eyes, which were almost swollen shut, nevertheless managed to open widely.

"Doc," Dale pleaded. "I don't mind getting blood as long as my Aunt Minnie donates it. She's the same blood type I am, and she's the only one I trust."

## IN MEMORIAM

### 1989

Howard Choice Martin, MD	July 23
D. Evelyn Miller, MD	July 30
Nevin Wilson Dodd, MD	July 31
Alwyn Travers Kornblee, MD	August 7
Edward Keats Norfleet, MD	August 13
Wayman Jackson Thompson, MD	September 20
Rheba L. Huff Edwards, MD	September 30
George Harry Garrison, MD	October 5
Monroe Ruework Jennings, MD	October 27
Edmund Gordon Ferguson, MD	November 17
Don Lee Dycus, MD	December 6
Sylvester Robert Shaver, MD	December 16
Charles Edwards Leonard, MD	December 27

### 1990

John Justice Batchelor, MD	January 8
Fred W. Sellers, MD	January 11
Dewey Lee Mathews, MD	January 18
Powell Everett Fry, MD	January 28
Alpha Louis Johnson, MD	February 3
Marshall W. Opper, MD	February 12
Vincel Sundgren, MD	March 1
Glen Smith Kreger, MD	March 25
Martin James Fitzpatrick, MD	March 27
David Charles Lowry, MD	March 30
Robert Alan Johnston, MD	April 9
Hervey Adolph Foerster, MD	April 15
Paul E. Kaldahl, MD	May 4
Homer Vincent Archer, MD	May 8
Ray Maxwell Wadsworth, MD	June 11
David Sprouse Dycus, MD	June 28
Paul Olden Shackelford, MD	July 27

"That's fine with me," I told Dale. "Where can I reach your Aunt Minnie?" I asked.

"She's a waitress at the Red Dog," Dale informed me. "She's got a nice vein just under the tattoo on her left arm."

"I'll tell the blood bank," I replied. "They'll be grateful for the tip."

I managed to contact Aunt Minnie and ordered one unit of blood to be transfused when available. I figured Dale would be able to make up the rest over the ensuing several weeks.

About an hour later, I got another call from Taylor Red. I figured he was probably going to congratulate me for ordering only one unit of blood instead of two, cutting in half the patient's chances of acquiring any blood-borne diseases.

"Bill, we've got a problem," Taylor began.

"Another problem?" I asked. "The hemoglobin this morning on Dale K. was 8.9 — that falls within the AABB guidelines as well as the Holy Christian Hospital guidelines for giving blood," I said somewhat defensively.

"True enough," Taylor said somewhat sympathetically. "But when the hemoglobin falls below 9.0 grams, you're better off giving two units of blood."

"Two units?" I asked. "I'm not sure Aunt Minnie can spare that much. Why two units?"

"Well, if the patient's sick enough that he needs blood, then you're better off giving two units," Taylor replied. "Besides, giving a single unit transfusion raises a red flag."

"A red flag?" I asked, all the while getting more confused.

"Quality assurance!" Taylor exclaimed. "The Joint Commission wants us to look at all single unit transfusions and determine their necessity. We can't just give blood willy-nilly you know. Big Brother is watching."

"Why can't I just give one unit of blood?" I asked.

"Well, you can give one unit of blood," Taylor replied. "Lord knows, the last thing we want to do is interfere with your care of the patient. It's just that you'll have to document it in the chart."

"What should I document?" I asked, trying to keep calm.

"Well, since it's a single unit transfusion," Taylor responded, "it will be automatically reviewed by the Quality Assurance and Blood Utilization review committees. All you have to do is document your reasons for giving only one unit. That keeps the lawyers happy, too," Taylor added.

"What do the lawyers have to do with it?" I asked.



Oklahoma State Department of Health

## ***Mammography facilities in state must meet OSDH & ACR guides***




The Radiation Protection Division of the Oklahoma State Department of Health's Consumer Protection Service has examined x-ray units used in mammography since 1976. Over the course of some 14 years, techno-

logical advances have improved the quality of the image and reduced the risks associated with the radiation dose. The facilities in Oklahoma have voluntarily kept pace with these improvements.

Image quality and radiation dose are the two primary concerns when evaluating a mammography unit. Where both film/screen and xeromammography can have excellent image quality, xeromammography units give a significantly higher radiation dose. Physicians from the American College of Radiologists (ACR), specialists in interpretation of x-ray images, recommend that a dose of less than one rad be received for any two-view mammography examination. The facilities which utilize a film/screen system in Oklahoma are well below this level. The majority of these facilities could take eight views and stay within this guideline. Xeromammography facilities are limited to a much smaller number. The Radiation Protection Division continues to work with all facilities to minimize the dose without compromising image quality.

There has been recent interest in selecting a mammography facility based on an accreditation by the ACR. The process of becoming accredited consists of sending patient files and films to the ACR to be evaluated by other physicians. There are minimum requirements regarding education for the person who performs the examination as well as the physician who interprets the image. Continuing education must be documented each year.

The most difficult aspect of the accreditation process is the evaluation of a "phantom" image. This is a test tool which determines the ability of the x-ray unit to distinguish objects which are similar to cancer or precancerous conditions. The unit must visualize at least 10 items in order to be satisfactory. The dose is measured and must be less than one rad per two-view examination. The state evaluation of mammography units uses the same criteria for dose level and image quality required by the ACR. 

"Well, this part gets a little tricky," Taylor responded. "If you give a single unit transfusion, and the patient contracts, say hepatitis, then the patient's lawyer might argue that the transfusion was unnecessary, since you only needed to give one unit. That's why you need to document your reasons for a single unit transfusion!"

"I think I'm finally catching on," I replied. "If the patient is sick enough to need blood, then he needs two units, even though that doubles his chances of contracting hepatitis or AIDS. No jury could accuse me of giving blood unnecessarily, since I ordered not one but two units of blood to be transfused."

"You've got it!" Taylor Red responded enthusiastically. "What I've said holds everywhere except in Japan."

"Japan?" I asked. "What happens in Japan?"

"Well, a unit of blood in Japan is only half the size of a unit in the United States," Taylor explained.

"So a single unit transfusion in the United States is considered a double unit transfusion in Japan?" I asked.

"Exactly," Taylor responded.

"I've just got one more question," I replied, feeling more and more sure of the situation. "What happens if the patient develops a blood reaction at the beginning of the second unit?"


"That's easy," Taylor responded. "Stop the blood and order a blood count. If it's above 9.0 grams, you don't need to give the second unit, unless you think the patient is still bleeding!"

"Why not?" I asked.

"Because, at least you've documented in the chart that you thought the patient's condition was bad enough that you tried to give two units of blood, even though you were unsuccessful," Taylor responded.

"Now I'm totally confused," I replied as I hung up the phone in frustration.

I ended up transfusing just one unit of Aunt Minnie's donor-directed blood and documenting my reasons in the chart. Dale K. did fine, and went home on the tenth day. After two months on iron therapy, his blood count returned to normal.

The Quality Assurance and Blood Utilization review committees both deemed the treatment to be appropriate. Some things they just don't teach you in medical school! 

### **The Author**

William P. Truels, MD, an Oklahoma City surgeon, is assistant editor of the Oklahoma County Medical Society's *Bulletin*.

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## DEATHS

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### Paul Olden Shackelford, MD 1920 - 1990

Paul O. Shackelford, MD, longtime Tulsa dermatologist, died July 27, 1990. A native of Haskell, Okla, Dr Shackelford was graduated from the University of Oklahoma School of Medicine in 1944. He served with the US Navy for 32 months during World War II, attaining the rank of lieutenant. His Tulsa medical practice was interrupted by his service during the Korean conflict as a member of the US Naval Reserve Medical Corps.



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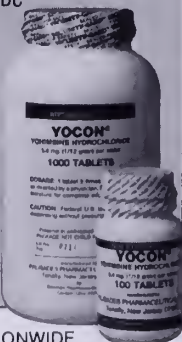
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#### References:

1. A. Morales et al., New England Journal of Medicine: 1221, November 12, 1981.
2. Goodman, Gilman — The Pharmacological basis of Therapeutics 6th ed., p. 176-188. McMillan December Rev. 1/85.
3. Weekly Urological Clinical letter, 27:2, July 4, 1983.
4. A. Morales et al., The Journal of Urology 128: 45-47, 1982.

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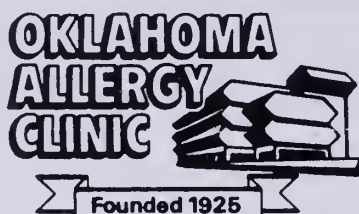
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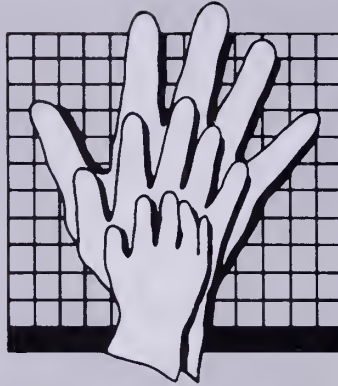
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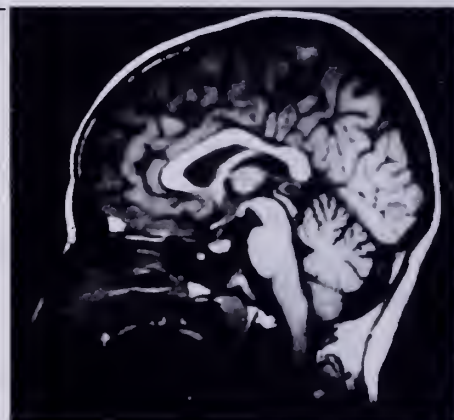
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"The time has come, the Walrus said,  
to talk of many things  
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And why the sea is boiling hot  
and whether pigs have wings"

—Lewis Carroll

So let's talk — let's talk about the beginning of this new decade, the last of the twentieth century. Hasn't it been a wonderful start? A new president is in the White House, the Berlin Wall is coming down and Communism appears to be losing its foothold throughout Eastern Europe, and again there may be hope for the hostages.

Let's talk about medicine. This is an exciting time for medicine — multiple organ transplant surgeries, laser surgeries, new and more effective treatments for cancer, high cholesterol and blood pressure, improved neonatal care, successful bone marrow transplants, better diagnostic techniques, and the list goes on. Will Jonas Salk do for AIDS what he did for polio?

And let's talk about medicine — it is alive and functioning, but it is not well. It is suffering from many ills — tort reform, physician reimbursement, apathy, dissension, access to care, third party reimbursement, and managed care programs, to name just a few. There is no immediate cure, but there is help, and that help is the auxilian, the volunteer, the one single most important resource of the medical auxiliary.

So, let's talk about medical auxiliary — it is an organization of physician spouses dedicated to addressing the specific concerns facing the medical family and to working toward a better quality of life for all. Auxilians have been and will continue to be very effective in areas such as:

**Legislation** — This is an election year, and it is our challenge to become involved in political campaigns with our time and money. We must have knowledge of the candidates. We must know how they feel about medical issues. How have they voted in the past? Many of us belong to AMPAC-OMPAC, but more of us should, so we actively solicit dues. We are aware that it is through these PACs that the AMA and OSMA are able to contribute financially to friends of medicine.

**Health Education** — The auxiliary will continue to promote health education through projects at the national, state, and county levels. This year on a state level our plans are to encourage a comprehensive health program for grades K through 8. A new

program from the AMA utilizing the services of a physician and an attorney to speak to students about the medical and legal consequences of drug use will be taken to all auxiliaries in the state to be implemented. We also will ask counties across the state to begin a metal implant bank for orthopedic surgical hardware and supplies to be gathered and sent to Mexico and Central and South America. On county levels, the auxiliary will continue with AIDS education; teen health symposiums; health and science fairs; puppet shows on tobacco, alcohol, and drug abuse; parenting classes; blood donor drives; eye glasses for the needy; anti-drunk driving campaigns; "Learn About Your Heart" kits for elementary school students; infant car seat loans to needy parents; hearing and vision testing; "Emergency First Aid" video for use of various organizations; support and staff day centers for the homeless; literacy programs; clothes drives for the needy; RN health care for the homeless; and many, many fund raisers to help medical causes.

**AMA-ERF** — This year auxilians across the nation raised over two million dollars for AMA-ERF. Auxiliaries will continue to come up with new and innovative ideas to raise even more funds this year. On a state level, "K" Caldwell has come up with an exciting idea which will be presented to all through the mail. I ask that you please respond to her letter. Contributions to medical schools for research and low-interest loans to deserving medical students are an absolute must as medicine must continue to attract the brightest minds for the future of medical excellence.

And now let's talk about auxiliary membership. It is of vital concern to me as state president because without members we cannot accomplish our goals. Auxiliary offers many opportunities for personal gratification at all levels, for friendships, for fun, and for involvement. Please encourage your spouse to join us, to take part in what can be done to help medicine, to help stop legislation which directly and adversely affects medicine and our physician spouse and therefore our life and that of our family. Encourage your spouse to become an auxilian, to reach out, show concern, and help when called upon in the community. Auxilians are prepared to meet the challenges facing the medical community and families. We are ready to be a part of the many exciting changes in medicine and the world about us. We can make a difference, and together we will make a difference.

—Nora H. White  
OSMAA President

■ **The location of the 1991 Annual Meeting of the Oklahoma State Medical Association (OSMA) House of Delegates** has been changed. Persons planning to attend the meeting should note that the May 9-11 meeting will be at the Sheraton Century Center Hotel in Oklahoma City. Plans originally called for the meeting to be at the Shangri La Resort near Afton.

■ **Roger E. Sheldon, MD, Oklahoma City**, has received the 1990 Paragon Award from Leadership Oklahoma City for his work in leading the Institute for Child Advocacy. Dr Sheldon is a neonatologist at Children's Hospital of Oklahoma, chief of the Neonatal Section at the University of Oklahoma Health Sciences Center, and chief of the Pediatric Service at Oklahoma Memorial Hospital. The annual award honors Leadership Oklahoma City alumni for outstanding leadership qualities and activities.

■ **Sherry Strebel (Mrs Gary F.), Oklahoma City**, has been named president-elect of the American Medical Association Auxiliary (AMAA). Mrs Strebel was elected in June during the Annual Session of the AMAA House of Delegates in Chicago and will serve for one year before assuming the office of AMA Auxiliary president. She has been active in the AMAA for many years, having served as secretary, vice-president of the southern region, director, and member of the Finance and Long-Range Planning committees. She has also served as AMA Auxiliary Legislation Committee chair and auxiliary representative to the AMA Council on Legislation.

Mrs Strebel was state auxiliary president and Legislation Committee chair for two years and continues to serve on the board of the Oklahoma County Medical Society Auxiliary, of which she was president.

■ **The Fifteenth Annual Fall Educational Meeting, Current Concepts in Occupational Medicine**, will be held Friday and Saturday, November 2 and 3, at the Seasons Inn in Edmond, Okla. The meeting is sponsored by the Oklahoma College of Occupational Medicine, a component society of the American College of Occupational Medicine. For details and registration information, contact William R. Gillock, MD, 6964 South 69th East Avenue, Tulsa, OK 74133, (918) 493-6544.

■ **The National Practitioner Data Bank** is scheduled to begin operation this month. The bank is a computerized clearinghouse of information on malpractice awards and settlements, adverse professional society actions, and professional review actions that result in revocation or suspension of clinical privileges by hospitals or other health care entities for more than 30 days — all of which must be reported to the data bank. A booklet entitled "National Practitioner Data Bank," which explains the program in detail, is available from the American Medical Association at no charge to its members. To order, call the AMA's toll-free number, 1-800-AMA-3211. The data bank also offers a toll-free help line to answer questions: 1-800-767-6732.

■ **Physicians insured by the Physicians Liability Insurance Company (PLICO)** have just seven more opportunities to attend a loss prevention seminar this year. Attendance at such a seminar at least once every three years is mandatory for continued PLICO coverage.

Seminars scheduled for the remainder of 1990 are as follows: **Tulsa**, October 2, 6:30-9:30 PM, Breast Cancer Loss Prevention Seminar, Sheraton Kensington Hotel; **Oklahoma City**, October 4, 6:30-9:30 PM, Breast Cancer Loss Prevention Seminar, Marriott Hotel; **Norman**, October 5, 2-5 PM, Loss Prevention for Psychiatric Residents, Central State Hospital; **Oklahoma City**, November 3, 1:30-4:30 PM, Oklahoma Academy of Pediatrics, Lincoln Plaza Hotel.

Other programs are: **Tulsa**, November 2, 9 AM-4 PM, Physicians' Rights and Medical Ethics Seminar, Hillcrest Hospital; **Oklahoma City**, November 4, 1-4 PM OSMA/PLICO-sponsored, Hilton Inn Northwest; **Oklahoma City**, November 16, 9 AM-4 PM, Physicians' Rights and Medical Ethics Seminar, Baptist Hospital.

The November 2 and 16 seminars require a full day's attendance and a registration fee. Information on all seminars is available from the OSMA, 601 Northwest Expressway, Oklahoma City, OK 73118, (405) 843-9571 or 1-800-522-9453. □



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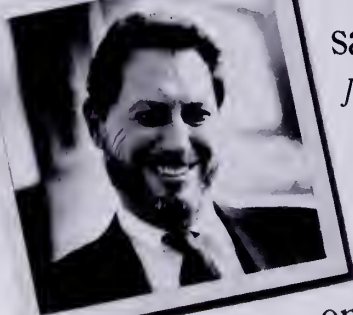
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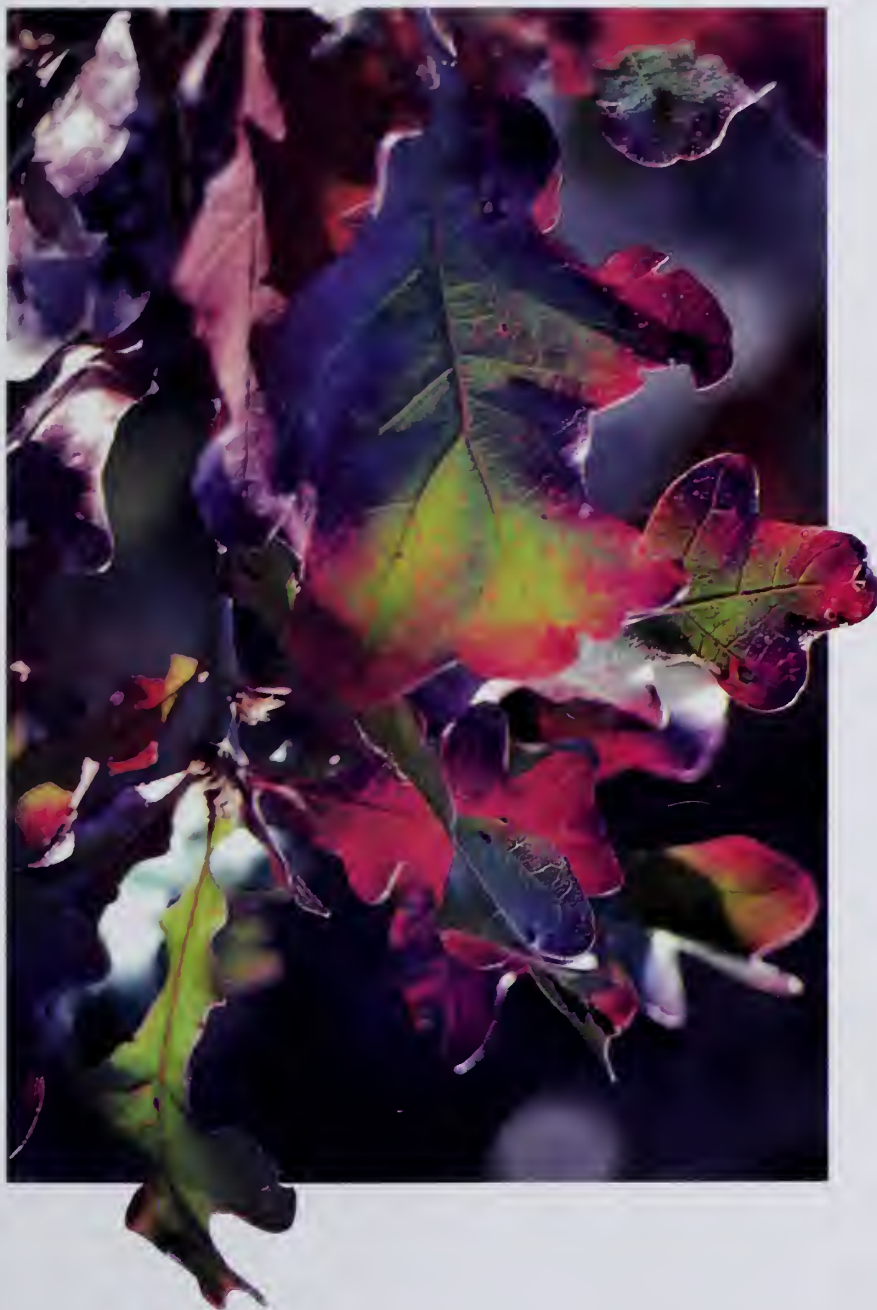


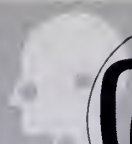
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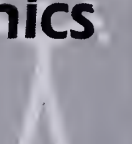
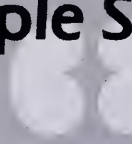
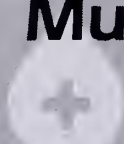
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Please see next page of this advertisement for references and a brief summary of prescribing information.

**SEARLE**

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### References:

1. Data on file, G.D. Searle & Co.
2. 1988 Joint National Committee: The 1988 report of the Joint National Committee on Detection, Evaluation, and Treatment of High Blood Pressure. *Arch Intern Med* 1988;148:1023-1038.

### BRIEF SUMMARY

**Contraindications:** Severe LV dysfunction (see *Warnings*), hypotension (systolic pressure < 90 mm Hg) or cardiogenic shock, sick sinus syndrome (if no pacemaker is present), 2nd- or 3rd-degree AV block (if no pacemaker is present), atrial flutter/fibrillation with an accessory bypass tract (eg, WPW or LGL syndromes), hypersensitivity to verapamil.

**Warnings:** Verapamil should be avoided in patients with severe LV dysfunction (eg, ejection fraction < 30%) or moderate to severe symptoms of cardiac failure and in patients with any degree of ventricular dysfunction if they are receiving a beta-blocker. Control milder heart failure with optimum digitalization and/or diuretics before Calan SR is used. Verapamil may occasionally produce hypotension. Elevations of liver enzymes have been reported. Several cases have been demonstrated to be produced by verapamil. Periodic monitoring of liver function in patients on verapamil is prudent. Some patients with paroxysmal and/or chronic atrial flutter/fibrillation and an accessory AV pathway (eg, WPW or LGL syndromes) have developed an increased antegrade conduction across the accessory pathway bypassing the AV node, producing a very rapid ventricular response or ventricular fibrillation after receiving I.V. verapamil (or digitalis). Because of this risk, oral verapamil is contraindicated in such patients. AV block may occur (2nd- and 3rd-degree, 0.8%). Development of marked 1st-degree block or progression to 2nd- or 3rd-degree block requires reduction in dosage or, rarely, discontinuation and institution of appropriate therapy. Sinus bradycardia, 2nd-degree AV block, sinus arrest, pulmonary edema and/or severe hypotension were seen in some critically ill patients with hypertrophic cardiomyopathy who were treated with verapamil.

**Precautions:** Verapamil should be given cautiously to patients with impaired hepatic function (in severe dysfunction use about 30% of the normal dose) or impaired renal function, and patients should be monitored for abnormal prolongation of the PR interval or other signs of overdosage. Verapamil may decrease neuromuscular transmission in patients with Duchenne's muscular dystrophy and may prolong recovery from the neuromuscular blocking agent vecuronium. It may be necessary to decrease verapamil dosage in patients with attenuated neuromuscular transmission. Combined therapy with beta-adrenergic blockers and verapamil may result in additive negative effects on heart rate, atrioventricular conduction and/or cardiac contractility; there have been reports of excessive bradycardia and AV block, including complete heart block. The risks of such combined therapy may outweigh the benefits. The combination should be used only with caution and close monitoring. Decreased metoprolol clearance may occur with combined use. Chronic verapamil treatment can increase serum digoxin levels by 50% to 75% during the first week of therapy, which can result in digitalis toxicity. In patients with hepatic cirrhosis, verapamil may reduce total body clearance and extrarenal clearance of digoxin. The digoxin dose should be reduced when verapamil is given, and the patient carefully monitored. Verapamil will usually have an additive effect in patients receiving blood-pressure-lowering agents. Disopyramide should not be given within 48 hours before or 24 hours after verapamil administration.

Concomitant use of flecainide and verapamil may have additive effects on myocardial contractility, AV conduction, and repolarization. Combined verapamil and quinidine therapy in patients with hypertrophic cardiomyopathy should be avoided, since significant hypotension may result. Concomitant use of lithium and verapamil may result in a lowering of serum lithium levels or increased sensitivity to lithium. Patients receiving both drugs must be monitored carefully. Verapamil may increase carbamazepine concentrations during combined use. Rifampin may reduce verapamil bioavailability. Phenobarbital may increase verapamil clearance. Verapamil may increase serum levels of cyclosporin. Concomitant use of inhalation anesthetics and calcium antagonists needs careful titration to avoid excessive cardiovascular depression. Verapamil may potentiate the activity of neuromuscular blocking agents (curare-like and depolarizing); dosage reduction may be required. Adequate animal carcinogenicity studies have not been performed. One study in rats did not suggest a tumorigenic potential, and verapamil was not mutagenic in the Ames test. Pregnancy Category C. There are no adequate and well-controlled studies in pregnant women. This drug should be used during pregnancy, labor, and delivery only if clearly needed. Verapamil is excreted in breast milk; therefore, nursing should be discontinued during verapamil use.

**Adverse Reactions:** Constipation (7.3%), dizziness (3.3%), nausea (2.7%), hypotension (2.5%), headache (2.2%), edema (1.9%), CHF, pulmonary edema (1.8%), fatigue (1.7%), dyspnea (1.4%), bradycardia: HR < 50/min (1.4%), AV block: total 1°, 2°, 3° (1.2%), 2° and 3° (0.8%), rash (1.2%), flushing (0.6%), elevated liver enzymes. The following reactions, reported in 1.0% or less of patients, occurred under conditions where a causal relationship is uncertain: angina pectoris, atrioventricular dissociation, chest pain, claudication, myocardial infarction, palpitations, purpura (vasculitis), syncope, diarrhea, dry mouth, gastrointestinal distress, gingival hyperplasia, ecchymosis or bruising, cerebrovascular accident, confusion, equilibrium disorders, insomnia, muscle cramps, paresthesia, psychotic symptoms, shakiness, somnolence, arthralgia and rash, exanthema, hair loss, hyperkeratosis, macules, sweating, urticaria, Stevens-Johnson syndrome, erythema multiforme, blurred vision, gynecomastia, increased urination, spotty menstruation, impotence.

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*Am Fam Phys* 1987;36:133-140

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#### Brief Summary

Consult the package literature for prescribing information.  
Indication: Lower respiratory infections, including pneumonia, caused by *Streptococcus pneumoniae*, *Haemophilus influenzae*, and *Streptococcus pyogenes* (group A  $\beta$ -hemolytic streptococci).

Contraindication: Known allergy to cephalosporins.  
Warnings: **CECILOR SHOULD BE ADMINISTERED CAUTIOUSLY TO PENICILLIN-SENSITIVE PATIENTS. PENICILLINS AND CEPHALOSPORINS SHOW PARTIAL CROSS-ALLERGENICITY. POSSIBLE REACTIONS INCLUDE ANAPHYLAXIS.**

Administer cautiously to allergic patients.

Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics. It must be considered in differential diagnosis of antibiotic-associated diarrhea. Colon flora is altered by broad-spectrum antibiotic treatment, possibly resulting in antibiotic-associated colitis.

#### Precautions:

- Discontinue Cecilor in the event of allergic reactions to it.
- Prolonged use may result in overgrowth of non-susceptible organisms.
- Positive direct Coombs' tests have been reported during treatment with cephalosporins.
- Cecilor should be administered with caution in the presence of markedly impaired renal function. Although dosage adjustments in moderate to severe renal impairment are usually not required, careful clinical observation and laboratory studies should be made.
- Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.
- Safety and effectiveness have not been determined in pregnancy, lactation, and infants less than one month old. Cecilor penetrates mother's milk. Exercise caution in prescribing for these patients.

#### Adverse Reactions: (percentage of patients)

Therapy-related adverse reactions are uncommon. Those reported include:

- Hypersensitivity reactions have been reported in about 1.5% of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs' tests each occur in less than 1 in 200 patients. Cases of serum-sickness-like reactions have been reported with the use of Cecilor. These are characterized by findings of erythema multiforme, rashes, and other skin manifestations accompanied by arthritis/arthralgia, with or without fever, and differ from classic serum sickness in that there is infrequently associated lymphadenopathy and proteinuria, no circulating immune complexes, and no evidence to date of sequelae of the reaction. While further investigation is ongoing, serum-sickness-like reactions appear to be due to hypersensitivity and more often occur during or following a second (or subsequent) course of therapy with Cecilor. Such reactions have been reported more frequently in children than in adults with an overall occurrence ranging from 1 in 200 (0.5%) in one focused trial to 2 in 8,346 (0.024%) in overall clinical trials (with an incidence in children in clinical trials of 0.055%) to 1 in 38,000 (0.003%) in spontaneous event reports. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy, occasionally these reactions have resulted in hospitalization, usually of short duration (median hospitalization = two to three days, based on postmarketing surveillance studies). In those requiring hospitalization, the symptoms have ranged from mild to severe at the time of admission with more of the severe reactions occurring in children. Antihistamines and glucocorticoids appear to enhance resolution of the signs and symptoms. No serious sequelae have been reported.
- Stevens-Johnson syndrome, toxic epidermal necrolysis,

and anaphylaxis have been reported rarely. Anaphylaxis may be more common in patients with a history of penicillin allergy.

- Gastrointestinal (mostly diarrhea): 2.5%
- Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment.
- As with some penicillins and some other cephalosporins, transient hepatitis and cholestatic jaundice have been reported rarely.
- Rarely, reversible hyperactivity, nervousness, insomnia, confusion, hypertension, dizziness, and somnolence have been reported.
- Other: eosinophilia, 2%; genital pruritus or vaginitis, less than 1% and, rarely, thrombocytopenia and reversible interstitial nephritis.

#### Abnormalities in laboratory results of uncertain etiology

- Slight elevations in hepatic enzymes.
- Transient lymphocytosis, leukopenia, and, rarely, hemolytic anemia and reversible neutropenia.
- Rare reports of increased prothrombin time with or without clinical bleeding in patients receiving Cecilor and Coumadin concomitantly.
- Abnormal urinalysis: elevations in BUN or serum creatinine.
- Positive direct Coombs' test.
- False-positive tests for urinary glucose with Benedict's or Fehling's solution and Clinistix<sup>®</sup> tablets but not with Tes-Tape<sup>®</sup> (glucose enzymatic test strip, Lilly).

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JOURNAL (ISSN 0030-1876) (USPS 285-000) is the official publication of the Oklahoma State Medical Association and is published monthly under the direction of the OSMA Board of Trustees at 601 Northwest Expressway, Oklahoma City, OK 73118. Second class postage paid at Oklahoma City, OK 73125. POSTMASTER: Send address changes to JOURNAL, c/o Oklahoma State Medical Association, 601 Northwest Expressway, Oklahoma City, OK 73118.

Subscription to the JOURNAL is included in membership dues. All other subscriptions are \$30 per year. Single issues are \$3 per copy, prepaid, subject to availability.

National advertising representative: State Medical Journal Advertising Bureau, Inc., 711 South Boulevard, Oak Park, IL 60302, phone (708) 383-8800.

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# JOURNAL

OKLAHOMA STATE MEDICAL ASSOCIATION

OCTOBER 1990

VOL. 83, NO. 10

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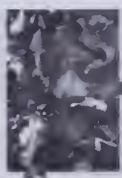
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**ON THE COVER**

JOURNAL



Autumn at Lake Eufaula.

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## The Greatest Virtue

In the darkened theater of human history, the display of charity has been an erratic candle sometimes flaring brightly, and sputtering, then dimly glowing and at times blazing brightly again. In ancient times charity was believed to be God's love given through a human intermediary to another human being.

With time, this spiritual concept of charity evoked a host of material applications, notably the provision of food, clothing, and shelter to unfortunates unable to fend for themselves. And as medical care developed into a useful commodity, medical services also came to be provided as charitable gifts. Physicians of every historical era have provided charitable services to unfortunates as often as has any profession, and more than many.

Always, charity has been considered one of the cardinal virtues, and a revered apostle rated it as . . . "the greatest." And yet, charity's erratic expression signals that it has only tentative acceptance into the mores of most people. Perhaps its rarity results because the spiritual value is less when charity is an episode of nonsacrificial donation of an unneeded surplus from those secure and strong to an unknown, faceless recipient.

In frontier America, mutual aid and personal charitable initiatives were warp and woof of our developing social fabric. But in modern times, this fabric has been blotched by a pattern of progressive assimilation of charitable activities by government agencies. As town councils and county commissioners came to supply food, shelter, and medical care to the unfortunate, a distancing and impersonalization resulted that cancelled the sense of personal attornment from the process.

However, this general pattern of local government's charitable supply of basic necessities did work for a time, as local knowledge of local unfortunates led to a reasonable use of charitable resources. But in more recent times, the federal government has institutionalized the dispensation of medical care, food, and shelter. Unfortunately, these federal preemptions of local customs have replaced the previous

personal charities with impersonal, remotely administered legalistic rules and regulations that commonly fail to fill the real human needs of the charity recipients.

So charity, the greatest virtue, has fallen on hard times in modern America, and has lost its spiritual effects, as more and more charities of our society have been subsumed by government. Charity by government does not elevate the giver nor does it strengthen the recipient. But the idea has been inserted that the charity recipient should have needs met without condition, and this biologically uncomfortable philosophy is now widespread in America's political process.

America is ensnarled in a deteriorating and bastardized medical economics system that must be revised if quality medical care is to continue. With vast numbers of uninsured, unemployed, and indigent patients, and a charity "system" preempted by a heart-

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*With vast numbers of uninsured, unemployed, and indigent patients, and a charity "system" preempted by a heartless bureaucracy, America must now reorganize its medical economics.*

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less bureaucracy, America must now reorganize its medical economics.

One of the needed elements in reorganization must be a return of charitable options and decisions to local — and more responsive — agencies. Since Medicaid regulations now need a major overhaul, this is a good time to dismantle them, and to return

both the funding and the intake decisions to the local county commissioners and state legislatures. Local elected officials should be the decision point for government "charity" choices rather than a remote-controlled, unelected social worker.

When locally controlled funds can be used for charitable medical care, we will be able to reestablish the county commissioner-teaching hospital connection. Then the medical profession would revitalize the relationship between the Oklahoma Legislature and Oklahoma Memorial Hospital. Then the Okla-

homa State Medical Association could rediscover the eloquence to extract adequate appropriations from the legislature for our teaching hospitals and medical schools.

It has been said: "charity begins at home." It also seems true to say "charity ends at home," and then conclude that the Greatest Virtue *exists* only at home.

*Ray V. M. Intyre, M.D.*

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## OMPAC — Who Needs It

In the midst of an almost unprecedented year of legislative and regulatory initiatives affecting medicine, let us consider just how your AMA and OSMA represent you.

Larry Long's Council on State Legislation and Regulation and Dick Boatsman's Council on Governmental Activities are the front lines. Assisted by capable staff, these councils identify issues at an early stage, analyze their potential effects, draft written and oral responses, and make innumerable personal contacts with regulators and legislators on behalf of patients and medicine. Only rarely are we faced with the necessity of individual physician involvement (as, for example, with the CLIA regulations). The successes are many, the losses few.

Have you considered, however, just how and why these efforts are so unobtrusive? While logic, righteousness, and charisma help, in the last analysis successful efforts are grounded in financial support of candidates, both individually and, very importantly, through political action committees. One does not buy votes, but consistent support and warm relations can be absolutely critical to gaining the ear of a solon when the chips are down.



Which brings us directly to OMPAC. Have you contributed? Several years ago your House endorsed unanimously a resolution stating that all OSMA delegates and officers and all OMPAC directors should be \$200-a-year OMPAC members. As of last August, only 35 had contributed! If every member of OSMA had made only a token contribution of \$25 we could have made a substantial impact on critical primaries. As it was, OMPAC was only half funded and many deserving candidates received either no or only token assistance. I suspect the consequences may be felt in the future.

It is not too late to have an impact on the general elections if you send a check to OMPAC. The AMA and the OSMA can do much for patients and medicine, but they do need both volunteers and money. Help yourself to a better future by sending a check today to:

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A handwritten signature in dark ink, appearing to read "Larry Long MD". The signature is stylized with a large, looping "L" and a trailing "MD".

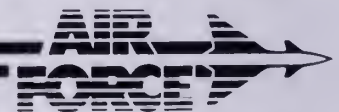
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## Adolescent Drug and Alcohol Abuse: A Time for Physician Response

David J. Confer, MD; Robert W. Block, MD

As community leaders, Oklahoma physicians are uniquely qualified to provide education and direction in the battle against adolescent drug and alcohol abuse.

**A**larming numbers of teenagers in the United States are being referred for alcohol and drug dependency treatment. Children admitted represent only a small proportion of those becoming chemically dependent. Parents and community leaders often turn to schools for a solution to the drug and alcohol problem. Whether through ignorance or apathy, parents have failed to come together to solve what is a community problem, not just a school problem. Physician leadership can provide education and direction so parents can unite with schools, law enforcement, and community leaders in a directed attempt to prevent their children from becoming involved with what is our nation's leading public health dilemma.

The Oklahoma State Medical Association (OSMA) is developing a task force of physician volunteers who will become involved in their communities. Support for the physician and his or her community will be provided in the form of pertinent information, educational materials, and introduction to specific leaders who specialize in chemical dependency control.

### Defining the Problem

Across the nation our teenagers have been given lectures not to do drugs, but they continue to be sur-

rounded by "do alcohol" messages. Adolescents are responding to the messages. Alcoholism among teenagers is a major problem in the state of Oklahoma.

Big teen parties happen each and every weekend. Photocopy notices are passed out at high schools detailing logistics of the events. These are often all-you-can-drink parties in apartment complexes, motel rooms, or private homes when parents are out of town. There are instances where parents provide alcoholic beverages. The parties are frequented by the most popular kids in school: football players, cheerleaders, student council leaders, etc. If younger children (popular eighth and ninth graders) are lucky enough to be invited, they may say no to the drinking temptation initially, but studies show 85% of adolescents beyond their 15th birthday are drinking regularly.

Unfortunately, only about 15% of parents think their children might be involved with drinking. This is a problem particularly in large school districts where parents do not know one another. They are reluctant to call to see if the teenagers are where they said they would be, and if there are responsible adults monitoring the party.

Along with alcohol, other drugs continue to be a problem. Cocaine, especially "crack" and a new form of amphetamine named "ice" are concerns. These drugs are inexpensive and are appealing to teenagers, who can rapidly develop addiction after only a few uses. Crack houses are open and doing booming businesses in many areas of our state. Juvenile drug dealers are a frequent problem. Sixteen high school students were arrested in Ponca City in one day for

Direct correspondence to Robert Block, MD, 2815 South Sheridan, Tulsa, OK 74129.

dealing drugs. Thirty-three dealers were apprehended in Enid, also in just one day. The relationship between teen pregnancy, accidental deaths, suicides, and other health hazards with drug and alcohol use is well documented.

### Community Involvement

Parents often won't become anxious and involved until some incident occurs to local teenagers. This is a good time for a prepared physician to come forth to offer leadership and organize a parents' meeting with school and community leaders. Law enforcement officials and students should be involved in the meeting to explain the nature of the problem. At one such meeting in the Tulsa area, parents asked school personnel why fewer students were attending football games. A student leader responded, "Frankly, kids would much rather go to the drinking parties than to the games." In a survey of the Fellowship of Christian Athletes following this meeting, 72% admitted to being involved with weekend drinking parties. Parent, school, and student response to the problem can be dramatic and positive. Drug-free contracts with students can be signed, drug testing programs can be instituted, and strict law enforcement can be supported by parents, as can appropriate school discipline.

Drugs and alcohol are inseparable from other issues concerning values and ethics. Children raised in a nurturing environment and as part of a healthy family have less chance of becoming dependent on chemicals. Basic parenting skills such as active listening, building the child's self-esteem, and emphasizing family values are all valuable tools. Children who feel good about themselves, and who are motivated to seek a successful future may experiment with alcohol and some drugs, but usually will not risk their most valuable asset, themselves, by abusing chemicals.

Too often, when children run into problems, the blame is placed on "peer pressure." Just as parents must teach about the exploitation of commercialism, they must also teach about how peers might exploit each other just to have company in an illegal and risky behavior. Children can be taught the true value of themselves as individuals. Parents should validate

the uniqueness that makes each child special and necessary as a contributing member of the family. Children can then make better judgments about peer influences. They may still feel compelled to go along with the crowd in choice of music, hairstyle, trendy fashion, and other harmless issues, but can "draw the line" and resolutely say "NO" when it comes to risk-taking behaviors.

One trap often catches parents, but can be avoided by most skillful adults. Never play the "Yes, you are . . . No, I'm not" game with adolescents. Rather than argue over whether or not a child is smoking, drinking, or doing drugs, parents are encouraged to look for "markers." Examples of useful markers include dropping grades in school, choice of friends, behaviors seen at home, responsibility level, appearance, language, and interests, among others. If the markers indicate problems, it is reasonable to suspect chemical dependency, or perhaps poor emotional health, both of which warrant counsel with a skilled professional. Often parents, who may feel embarrassed or guilty, are unwilling to admit problems in their own children, and will become enablers. An enabler is a person who allows another to continue the downward slide of chemical dependency by ignoring the problem, covering for the disabled child, making personal excuses, and hiding from reality.

In recent years, good prevention programs have been sponsored by the Oklahoma Alliance Against Drugs (OAAD). This nonprofit organization has regional directors in several parts of the state. Prevention efforts can be increased by physicians volunteering to work with the OAAD to do what they can for teenagers in their communities. J

### Recommended Reading

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2. Wilford BB. *A Guide for the Primary Care Physician, Drug Abuse*, AMA, 1981.
3. Macdonald DI. *Drugs, Drinking and Adolescents*, Year Book Medical Publishers, Chicago, 1984.
4. *Substance Abuse: A Guide for Health Professionals*, American Academy of Pediatrics, 1988.

### The Authors

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Robert W. Block, MD, is professor and vice-chairman of the Department of Pediatrics at OUCMT. He is certified by the American Board of Pediatrics.



# Mental Retardation, 1990: An Overview

Robert B. Kugel, MD

This paper presents some of the major advances that have occurred in the field of mental retardation over the past 30 years. Included in this list are the developments of cytogenetics, etiology of cerebral palsy, progress in prevention as in Tay-Sachs disease and phenylketonuria, the fragile X syndrome, and the influence of certain aspects of diet on the developing fetus. Also included is a discussion of some of the areas of management of persons with mental retardation which remain as challenging problems for the future. These include persons who are both mentally retarded and emotionally ill, persons who are in penal institutions, and persons who have familial mental retardation.

**D**uring the past 30 years there has been a substantial change in our understanding about mental retardation and in appreciating better ways to manage those persons who have mental retardation. It is the purpose of this paper to review some of the major accomplishments of this period and to describe some of the important challenges which remain.

Research workers, stimulated by increased societal interest in the subject of mental retardation and provided with the necessary funds to conduct the research, have been impressive in their accomplishments. Basic understanding of the functioning of the central nervous system has been expanded in many ways. Some of the new knowledge relates to the biochemical study of how certain very specific sub-

stances influence brain physiology. One example is understanding how the amino acids, phenylalanine and taurine, function in both abnormal and normal circumstances. Another example has come from studying the pathohistology of the brains of persons with Down's syndrome. New knowledge provides us with far greater awareness of how the brain is altered morphologically when there is a clear etiology responsible for the retardation, as in the case of Down's syndrome. There also have been some especially interesting descriptions of the brains of persons with Down's syndrome who in later life developed Alzheimer's disease.

There now are well over 100 different biochemical disorders known which can give rise to complex physiological disorders of brain functioning that in turn produce the symptom of mental retardation. While this number of conditions is impressive in itself, there is reason to expect there will be still other disorders described over the next 25 years. Tests have been developed in some instances that can detect biochemical defects in prepregnancy, eg, in several of the lysosomal storage diseases. There has been a decline in the incidence of Tay-Sachs disease because such prepregnancy tests are available to persons at high risk for producing offspring with the disease. The potential parents may then decide they do not wish to risk having a child with this disorder.

Another exciting development in the past 25 to 30 years has been the advent of specific tests to detect early in life certain biochemical abnormalities that, if undiagnosed and untreated, will give rise to mental retardation. The best known example is the test-

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ing of newborns for phenylketonuria (PKU). The Guthrie<sup>1</sup> test was found to be effective, simple, and inexpensive and as a result the states were persuaded, largely at the behest of parents and other concerned persons, to pass laws making mandatory the routine testing of all newborn infants. The attractive aspect of this testing program was to have an effective form of treatment, thereby making the testing worthwhile for many reasons, including cost/benefit. Other types of neonatal screening tests, such as those for hypothyroidism and galactosemia, have been added to the PKU testing program already in place.

Many studies in epidemiology have been conducted over the last 30 years, and there have been some surprises. For example, the premise for the large National Collaborative Study sponsored by the National Institute of Neurologic and Communicative Disorders and Stroke was that children suffering from various degrees of anoxia at birth would have varying amounts of cerebral palsy in direct relationship to the amount of anoxia. Such was not the case.<sup>2</sup> On the basis of data obtained from 40,000 newborns, drawn from several medical centers across the country, the analysis showed there was less cerebral palsy and mental retardation to be found than the amount of paranatal anoxia, as measured at birth by the Apgar scoring methods, would suggest. Only when the insult was extensive and the five-minute Apgar score was five or less was there any predictability of demonstrable cerebral palsy. We learned less about the direct causative factors in cerebral palsy than had been predicted. Other antecedent causes will need to be investigated if our knowledge of this disorder is to be clarified. However, it is clear that cerebral palsy is not caused universally by obstetrical-related problems as had been supposed.

It has been suggested that there are over 5 million chemicals to which our population has significant exposure. Of these, only 1,600 chemicals have been demonstrated to be teratogenic. How many more may be a matter of speculation. One must remember the Karmofsky principle,<sup>3</sup> which says that any agent can be shown to be teratogenic in an animal, providing enough is given at the right time. For example, both sucrose and sodium chloride have been shown to be teratogenic in animals when enormous doses are given. Add the various viruses which can invade the central nervous system during pregnancy and which may then produce any number of congenital abnormalities in the brain, and the number of conditions that may adversely affect the developing brain at any time during its development is legion.

One of the interesting developments in molecular biology was the discovery of the fragile X syndrome<sup>4</sup> in 1969. It is now estimated that 10% of all males who are mentally retarded will be of the fragile X variety. Since most of these afflicted persons have no stigmata at birth, they are seldom identified until unmistakable signs of developmental delay are noted. The association of this abnormality with persons considered

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*In the US we still talk about 3% of the population as being mentally retarded....*

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to have autism also has been very interesting and suggests the different expression that may be manifested in this syndrome. Although the precise mechanism of action is not understood, the importance of molecular action on genetic disturbances is clearly demonstrable. It is postulated that the disturbance is one involving the availability of thymidine.

Experimental work has been carried out with dogs in which the mothers are placed on a protein poor diet.<sup>5</sup> Their pups are subjected to reduced blood volume expansion, which leads to inadequate increase in cardiac output followed by a decreased blood flow. These animals show behavioral abnormalities later on in life. The extent to which this experimental model is transferable to humans is not clear.

These items are but a small sampling of some of the advances which have taken place. Another area of concern is the management of persons with mental retardation. In 1962, when President Kennedy asked his special Panel on Mental Retardation to look at a wide variety of issues related to mental retardation, some attention was given to what other countries were doing. On visiting Sweden and Denmark, many visitors were impressed by the direction the Scandinavians were taking. They were moving away from heavy reliance on the use of institutions and towards community-based settings. From these and other observations came the now familiar doctrine of "normalization."<sup>6</sup> The Scandinavians articulated this concept well, stating that all persons should have the same opportunities, including living in the community and receiving necessary services in the proximity of their own families.



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While this concept is attractive in many ways, there was little opportunity to implement it in this country until after the Education for All Handicapped Persons Act (PL 94-142) was passed in 1975. Under the law, states were required to provide educational opportunities in the community at public expense for all persons with handicaps up to age 21, regardless of the extent of their disability. However, there are four subgroups for whom services in the community have often been difficult to achieve.

The first group consists of those persons with extensive physical problems and usually extensive intellectual deficiencies as well. Examples around the country show how well these persons with special needs can be accommodated in the community, providing there is a network of medical support personnel services available. Physical, occupational, speech, and respiratory therapy; nursing services; social work; psychology; and a wide variety of medical services must be available and must exist in some coordinated fashion to fully support the individual's needs. Outstanding statewide programs such as those found in Arizona<sup>7</sup> and Nebraska<sup>8</sup> as well as in many individual communities can be reviewed to see how such programs have worked out.

The second group consists of persons who are both mentally retarded and mentally ill. For a time in the late sixties and early seventies there were suggestions that the two conditions could not exist simultaneously in the same person; yet, everyone who has worked with large groups of persons who have developmental disabilities knew that this was not the case. The overtly psychotic person who is also mentally retarded presents many problems to health care personnel who are trying to provide psychiatric help. If hospitalization seems indicated, there are often major impediments in obtaining that level of care.

The third group, and one of the most neglected, are those persons who are mentally retarded, usually in the mild range, who get into trouble with the law and are subsequently sentenced to jails, prisons, or other correctional facilities. Whether there should be special facilities for these persons, often still referred to as defective-delinquent persons, or whether they should be judged in a different fashion from the so-called normal person is still being debated. It is estimated that in our penal institutions somewhere between 5% and 15% of the inmates are mentally retarded. Management of these individuals in the community is a major dilemma, and although there is some awareness<sup>9</sup> of the problem, no state offers a blueprint for its solution.

The fourth group is the largest and in many ways the most worrisome because of its size. These are the persons from families having several members judged, at least by the school system, to be mentally retarded and usually falling in the mild range of retardation. Over the years this type of retardation has been called cultural familial retardation, familial mental retardation, garden variety mental retardation, etc. Of all the persons said to be mentally retarded — and in the US we still talk about 3% of the population as being mentally retarded — this group constitutes perhaps as much as 75% of the total.

Characteristically, these people come from low income, low socioeconomic segments of our society and, when studied biologically, seldom reveal any recognizable defect to explain their retardation. They are the large inner city group that makes up the largest segment of special education classes. They are also found in isolated rural areas and have been identified as a significant element of the Appalachian poor.

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*...In Sweden the authorities indicate that the total percentage of persons classified as mentally retarded... is only 1.5%.*

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Some notable examples show that the children in this group can be lifted from the realm of mental retardation. Studies in Iowa,<sup>10</sup> Michigan,<sup>11</sup> and Wisconsin<sup>12</sup> have demonstrated ways of improving the functioning of this group of persons, but to date these promising leads have not been adopted on a widespread basis and hence the problem continues. Interestingly, in Sweden the authorities indicate that the total percentage of persons classified as mentally retarded at all levels of society is only 1.5%. The difference between their figures and the American figures, according to the Swedes, has been due to their systematic attack on the several ingredients of poverty — substandard housing, lack of suitable jobs, poor health care, and inadequate educational opportunities — such that they no longer have this group of persons with so-called cultural familial mental retardation.

This paper has only scratched the surface of this still important problem in our society. Great strides have been made in the last three decades, but if the prediction of President Nixon<sup>13</sup> that we would reduce mental retardation by one half by the year 2000 is to come true, much more will need to be done. ¶

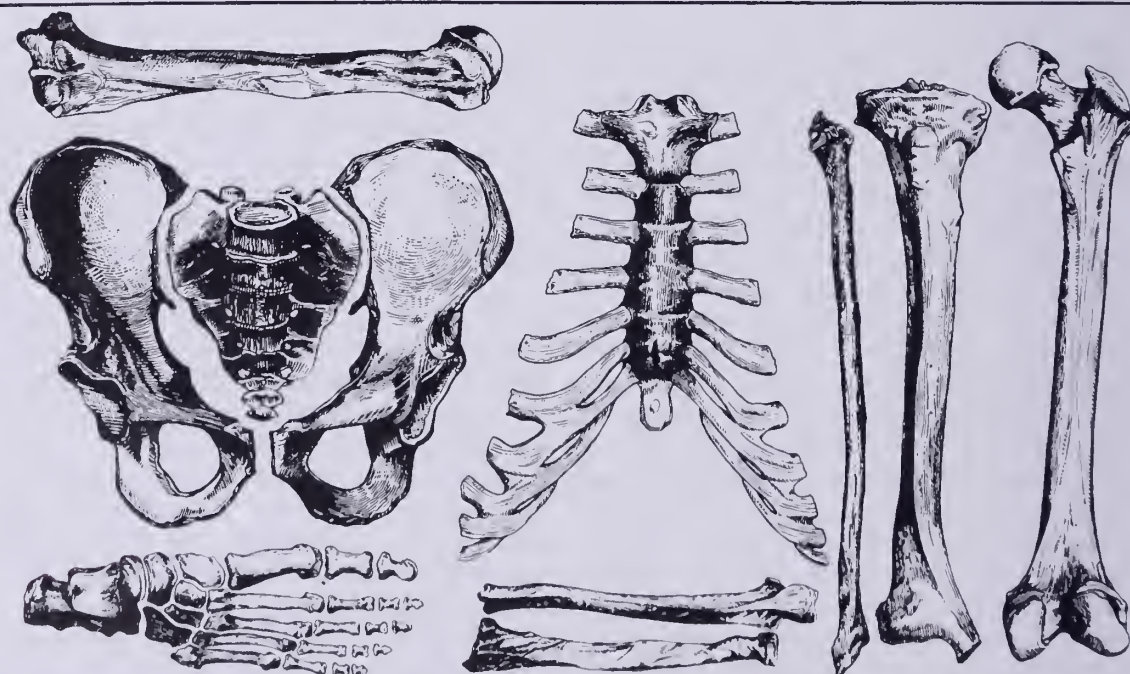
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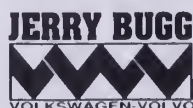
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# The Author

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## Funny Money — Part II

By William P. Truels, MD

I happened to overhear Lola, my office manager, complain about a recent reduction in Medicare reimbursement. I decided to call the Medicare office and get to the bottom of things. After a ten-minute hold (listening to classical music), the operator put me through to a Mr Ida Noe.

"Hello, Mr Noe," I began. "I'm Dr Bill Truewater. Your computer seems to have made a mistake on its reimbursement. The payment is 7% less than what I received for the same gall bladder operation last month. I wish you people could keep things straight!" I added indignantly.

"I'm sorry, Dr Truewater," Mr Noe replied. "Haven't you heard about the Medicare Omnibus Reconciliation Act passed in November 1989?"

"No, I haven't," I replied somewhat angrily.

"Well, basically, Dr Truewater, the government feels that gall bladder operations are what we call 'overvalued procedures.'"

"What does that mean?" I asked.

"In your case, it means that Uncle Sam is cutting reimbursement by 5% a year for the next three years," Mr Noe replied.

"Well, at least I've still got hernias, colon resections, and appendectomies to take up the slack," I added hopefully.

"I'm sorry to tell you, Dr Truewater, that just about everything you do as a general surgeon is considered 'overvalued.' That means you'll get an across-the-board 5% cut in Medicare reimbursements."

"That's not fair!" I complained. "For the past five years, my fees have increased only with inflation. Yet the term 'overvalued procedure' makes it sound like I'm cheating the public!"

"That's just semantics, Doctor," Ida responded. "It's not meant to be taken personally."

"But that's not all, Dr Truewater," Mr Noe continued. "Your reimbursement is being cut an additional 2% because of the Gramm-Rudman Budget Deficit Reduction Act."

"I don't get it."

"Well, you see, Dr Truewater, the government spent too much money last year. In order to reduce the deficit, the Gramm-Rudman Act calls for an across-the-board reduction in Medicare reimbursements — that includes physician reimbursements."

"I still don't get it," I replied. "The government spends too much money, then takes it out on the physicians and the hospitals?"

"The government's experimenting," Ida answered. "They're trying to figure out ways to cut health care costs."

"They're experimenting, all right," I replied angrily. "Just like the Nazis experimented during World War II! Why doesn't Congress experiment with cutting their own salaries as a first step toward balancing the budget?"

"It's really very simple," Ida Noe explained. "The federal government has to bail out all those savings and loan corporations from bad real estate ventures, continue to support military expenditures, and bail out banks from debt-financed takeovers with junk bonds that are in danger of default."

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Direct correspondence to William P. Truels, MD, 3400 Northwest Expressway, Suite 820, Oklahoma City, OK 73112.

"Tell me, Ida," I replied, "what kind of savings and loan bailout program allows the buyer of a failed savings and loan to become a multimillionaire in one year?"

"The government is still working on closing the loopholes," Ida responded defensively.

"Someone's got to pay for the financial mistakes on Wall Street," I continued. "I guess the hospitals and physicians are a good place to start. Besides, it gives the politicians a chance to play Robin Hood — they can vote themselves a 20% pay increase, and still claim to be the champions of the people!"

"It's a murky business," Ida Noe explained. "But look at it from the government's standpoint. Medical costs have doubled in the last five years. How do you expect Uncle Sam to keep footing the bill?"

"My physician fees have kept up with inflation these last five years, nothing more," I responded. "With people demanding the latest technology and the newest drugs, hospitals are pressured to increase their costs. At least Medicare will grant me their 5% cost of living increase," I added.

"That may change, too, Dr Truewater. Since Congress can't use the \$100 billion social security revenue surplus to hide the budget deficit anymore, everyone on Capitol Hill is talking about a spending freeze."

"Let me add all this up," I responded. "There's a 2% reduction from Gramm-Rudman, a 5% reduction for surgeons in the Omnibus Reconciliation Act, and a 5% real-dollar loss due to a probable spending freeze. In terms of inflation-adjusted dollars, that would cut Medicare physician reimbursement for surgeons a total of 12% in one year," I concluded.

"Think of it this way, Doctor," Ida replied. "You're doing it for the good of humanity."

"Speaking of the good of humanity," I answered, "why doesn't Congress enact tort reform legislation that would reduce the 10-20% physician overhead for malpractice expenses? Surely some Congressional committee has figured out that trial lawyers perform an 'overvalued service.' Two years ago, one of my patients won a ten-million-dollar liability settlement, and the lawyers collected five million dollars plus expenses! Why doesn't Congress enact limits on liability and legal fees?"

"I dunno," Ida Noe replied. "That's getting into

politics, Doctor. You'll have to remember that there are a lot more lawyers in Congress than there are physicians."

"And there're always a few former trial lawyers on the State Supreme Court that can declare state tort reforms unconstitutional, should that become necessary," I added. "You really can't blame the lawyers for looking after themselves!"

"I'm afraid the future doesn't look any brighter," Mr Noe added. "With our present projections, we may be talking about rationing health care by the mid-1990s."

"How can you ration health care?" I asked. "It's not quite the same thing as rationing gasoline or ammunition. We're talking about real people here!"

"We know that," Ida answered. "Some very difficult ethical decisions will have to be made. And doctors as well as patients will have to help make them."

"By the way," Ida continued. "Have you seen the President's new budget proposals for 1990?"

"I'm afraid to ask."

"Well, it seems the government is having a cash flow problem these days," Ida explained. "Their collections are down to a trillion dollars a year. You might as well plan on Medicare reimbursements to physicians and hospitals being cut another 2%. That leaves you with a 14% reduction in Medicare reimbursement by next year, Doctor."

"How did we ever get into this mess?" I asked. "It wasn't so long ago that people were laughing at the Penn Square debacle — funny money — and all that. Now, the Bank of New England gets into big trouble with junk bonds, leveraged buy outs, and bad real estate loans, and Uncle Sam is supposed to bail them out."

"It's just simple economics," Ida replied. "The government spends 200 billion dollars more than it collects, so doctors, hospitals, and patients have to help make up the difference."

"It still sounds like funny money to me," I answered.

"It is funny money," Ida concluded. "Only nobody's laughing!"

#### The Author

William P. Truels, MD, an Oklahoma City surgeon, is assistant editor of the Oklahoma County Medical Society's *Bulletin*.



## Awards presented

**OSMA Board of Trustees holds summer meeting in Oklahoma City**

The August 19 meeting of the OSMA Board of Trustees was highlighted by the presentation of special awards for activities in Oklahoma's campaign against child abuse.

Receiving plaques for their involvement in the child abuse project and the passage of Enrolled House Bill 2331 were State Senator Ben Brown, Representative Linda Larason, and Ray V. McIntyre, MD, Kingfisher, an OSMA past president.

- Michael W. Strange, MD, president of the Oklahoma Foundation for Peer Review, reported that OFPR's Board of Directors has implemented two new policies intended to improve review quality — (1) intensification of educational conferences and (2) a change in review policy, whereby review will be done by two independent reviewers, one of whom will be in the same specialty as the physician being reviewed.

- OSMA Executive Director David Bickham reported that the state employees insurance fund reorganization is essentially complete, and some 2,600 physicians and 125 hospitals are participating. The plan, which now incorporates a more workable co-payment system, is open to everyone. Mr Bickham also announced that Governor Bellmon has appointed M. Joe Crosthwait, MD, to the basic health benefits board that will decide which benefits will be endorsed by the state.

- Reporting as caucus chairman from the AMA meeting in June, Dr Crosthwait said that 295 resolutions and 110 reports were reviewed by the AMA House of Delegates. The Oklahoma Delegation presented 12 resolutions that either were passed standing alone or were incorporated in other resolutions with the same conceptual language. He stressed that as a unified state, Oklahoma is influencing American medicine.

- OSMA Associate Director Michael Sulzycki requested that rural communities raise the limit for VIP (Very Important Patient) members to near \$9,500, the maximum a person can receive from So-

cial Security, thus allowing more individuals to qualify for the VIP program.

- Larry Long, MD, chairman of the Oklahoma Medical Political Action Committee (OMPAC) reported that the committee had voted to back Congressmen Mike Synar, Glenn English, Bill Brewster, Jim Inhofe, and Mickey Edwards.

In other action:

- The board named J. William McDoniel, MD, Chickasha, as Alternate Trustee, District XIII, and Charles D. Cook, MD, Poteau, as Alternate Trustee, District X.

- A proposed OSMA-sponsored retirement plan for physician members, the AMA Investment and Retirement Program, was approved for implementation.

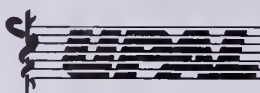
- On the recommendation of the Executive Committee, the board authorized a one-time \$1,000 donation to the Alliance on Aging.

- Applications for Life Memberships were referred to a Credentials Committee, to be appointed by the chairman of the board, to (1) develop criteria for addressing problems particular to life memberships and (2) aid county medical societies when considering those criteria for life member applicants. The OSMA Constitution and Bylaws Committee was instructed to clarify the OSMA bylaws to align with the AMA criteria for life membership status.

- The board formally nominated OSMA President Perry A. Lambird to serve another term on the AMA Council on Medical Services and authorized the necessary financial assistance as provided in the OSMA budget.

- Enid was named as the site of the November 18 board meeting.

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### *Expanded access offered*

## **Precautions noted for doctors involved in ddI clinical trials**

The following summary, published at the request of the US Department of Health & Human Services, was prepared by the National Institute of Allergy and Infectious Diseases:

A Note to Physicians: Important New Information on ddI (didanosine) from AIDS Clinical Trials and the Expanded Access Program.

By mid-July 1990, more than 10,000 patients with AIDS or ARC had received ddI, an experimental anti-HIV drug, through either Phase II clinical trials supported by the National Institute of Allergy and Infectious Diseases (NIAID) or through an expanded access program initiated by Bristol-Myers Squibb Co. Although well tolerated overall, ddI produces some toxicities: pancreatitis has been reported in 1.5% of patients enrolled in the Phase II trials and in 2% of patients enrolled in the expanded access program. The risk of pancreatitis appears to be strongly correlated with prior history of pancreatitis and with advanced HIV disease and poor clinical status.

NIAID has prepared a Note to Physicians detailing specific precautions for doctors to consider to de-

crease the risks of pancreatitis, along with a description of other side effects. The ddI Note to Physicians and information on the ddI and other AIDS studies can be obtained by contacting the AIDS Clinical Trials Information Service (ACTIS) at 1-800-TRIALS-A.

Physicians are strongly encouraged to consider referral of eligible patients to the ddI controlled clinical trials, whose completion is essential for a full understanding of ddI's long-term safety and efficacy in treatment of HIV-infected patients.

Two of the Phase II trials compare the safety and efficacy of ddI and AZT in AIDS or ARC patients, and a third evaluates ddI in AIDS or ARC patients intolerant to AZT. The trials are conducted by NIAID's AIDS Clinical Trials Group (ACTG).

Bristol-Myers Squibb Co. is offering an expanded access program to provide ddI to patients with HIV who are ineligible for the Phase II trials. More information on this program is available through the company's VIDEX Information Center at 1-800-662-7999. □

## **Requirements change for issuance of handicap parking privileges**

The Oklahoma Legislature, in its 1990 session, changed the medical requirements for issuance of handicap parking privileges.

Physicians who certify disabilities for eligible patients should note that as of September 1, 1990, the following are the only medical reasons by which an individual can qualify for a handicap parking privilege:

A. Cannot walk two hundred (200) feet without stopping to rest, or;

B. Cannot walk without the use of, or assistance from, a brace, cane, crutch, another person, prosthetic device, wheelchair or other assistant device, or;

C. Is restricted to such extent that the person's forced (respiratory) expiratory volume for one (1) second, when measured by spirometry is less than one (1) liter or the arterial oxygen tension is less than sixty (60) mm/hg on room air at rest, or;

D. Must use portable oxygen, or;

E. Has functional limitations which are classified in severity as class III or class IV according to standards set by the American Heart Association, or;

F. Is severely limited in his or her ability to walk due to an arthritic, neurological or orthopedic condition.

For additional information, write or call the Oklahoma Department of Public Safety, PO Box 11415, Oklahoma City, OK 73136-0415, (405) 425-2424. □

### *Perinatal Task Force*

## **Physicians encouraged to use task force's screening form**

A genetic screening form, generated by the OSMA Perinatal Task Force appears in this issue of the JOURNAL (page 500).

While the form has not been officially approved by the Physicians Liability Insurance Company (PLICO), its use is currently being recommended by the task force.

Physicians are encouraged to copy or reproduce the form as needed for use in their practices. □

## PATIENT SCREENING HISTORY

PATIENT NAME \_\_\_\_\_

FATHER OF BABY \_\_\_\_\_

Many families carry rare genetic problems. Those families usually recognize the name of such a disease. Please tell us if you or the father of the baby have any of the following diseases in your families:

(Circle any that apply)

Birth Defects	Hydrocephalus (water on the brain)
Childhood Blindness	Polycystic Kidney Disease
Down's Syndrome (Mongolism)	Hemophilia ("free bleeder")
Childhood Deafness	Huntington's Chorea
Mental Retardation	Cystic Fibrosis
Childhood Heart Disease	Muscular Dystrophy
Cleft Lip or Palate	Galactosemia
Spina Bifida (open spine)	Dwarfism
Congenital Heart Disease	Infant or childhood deaths

Y N

Do you know of any other genetic diseases in your families? \_\_\_\_\_

Are you and the father of the baby blood relatives? \_\_\_\_\_

Have you or the father of the baby lived in Haiti, Africa, SE Asia? \_\_\_\_\_

Do you or the father of the baby use street drugs in the veins? \_\_\_\_\_

Have you or the father of the baby had a blood transfusion? \_\_\_\_\_

Have you or the father of the baby been in prison? \_\_\_\_\_

Have you or the father of the baby had sex with a homosexual? \_\_\_\_\_

Have you or the father of the baby had serum hepatitis or AIDS? \_\_\_\_\_

Would you or the father like to have a test for hepatitis or AIDS? \_\_\_\_\_

Have you had herpes? \_\_\_\_\_

Do you use cocaine or "crack" or other "street" drugs? \_\_\_\_\_

Do you use alcohol regularly? If so, how many drinks a day? \_\_\_\_\_

Do you smoke cigarettes? If so, how many cigarettes a day? \_\_\_\_\_

Do you suffer physical or mental abuse? \_\_\_\_\_

Please list any other conditions that are common in your family (Diabetes, Heart Trouble, Twins, etc.) \_\_\_\_\_

If you or the father of the baby are in the following categories, please respond:

Y N

Black/Indian — have you had sickle cell testing? \_\_\_\_\_

Jewish — have you had Tay Sachs disease testing? \_\_\_\_\_

Italian/Greek/Southeast Asians — have you had Thalassemia testing? \_\_\_\_\_

If you will be over 35 when the baby is born, be sure to ask about amniocentesis.

List any problems you have had in this or other pregnancy that you would like to discuss with the doctor:

Date \_\_\_\_\_

Signature: \_\_\_\_\_



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## Annual August Event

# OSMA sponsors picnic in OKC to welcome new medical students



Approximately 175 first-year medical students, their spouses and children, and physicians attended this year's OSMA student picnic on August 24. Also attending in their capacity as hosts were OSMA staff members. A popular annual event, the picnic welcomes the new class of medical students, introduces them to organized medicine in Oklahoma, and gives them an opportunity to meet one another. Picnickers gathered on the front



lawn and beneath the portico at OSMA headquarters. The menu included hamburgers, hot dogs, baked beans, potato salad, fresh fruit, and dessert. Briefly addressing the group this year were OSMA President Perry A. Lambird, MD, an Oklahoma City pathologist; OSMA Speaker of the House Larry L. Long, MD, a surgeon in Oklahoma City; and Jonathan Drummond, MS III, president of the OSMA student section at OUHSC.

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## From Aetna Medicare

# Physician Payment Reform Update: A Letter to Physicians About The Comparative Performance Report Program

## WHAT IS THE COMPARATIVE PERFORMANCE REPORT PROGRAM?

The Comparative Performance Report program is an informational effort intended to alert physicians who have billed Medicare for an unusually large number of services or procedures in comparison to their peers on an annual basis. Aetna Medicare accumulates data on the billing patterns of physicians who treat Medicare patients. Comparative Performance Reports compare the billing patterns of physicians for a variety of services or procedures to billing norms for all physicians in the same specialty and locality. Billing norms are calculated by determining the average number of services billed per 100 beneficiaries treated plus two standard deviations. In general, 95% of physicians bill Medicare for a number of services within the norms.

Physicians who exceed the billing norms will be sent a Comparative Performance Report describing

the procedures or services billed for at a higher rate than their peers, and an explanatory letter containing information on whom they may contact to discuss it. This information will allow recipients to conduct an independent assessment of the appropriateness of coding, billing and utilization practices.

## WHO WILL RECEIVE COMPARATIVE PERFORMANCE REPORTS?

Aetna Medicare will send Comparative Performance Reports to physicians in the fall of 1990. Physicians and group practices will be selected to receive them through the analysis of postpayment claims data for the most recent 6-month period available. Nationwide, they will be sent to approximately 5,000 individual physicians and group practices.

If it appears possible that a physician's selection was the result of an incorrect specialty listing, Aetna Medicare will contact him or her to confirm that our

## Aetna Medicare (continued)

file contains the correct listing before sending a report. For example, when we profile a physician listed in our file as an internist who practices gastroenterology, our analysis may reveal a high rate of endoscopic procedures *for an internist*. However, his or her billing rate for endoscopic procedures may be consistent with that of other gastroenterologists. Such a physician would not receive a report.

### WHY IS AETNA MEDICARE CONDUCTING THE COMPARATIVE PERFORMANCE REPORT PROGRAM?

Section 6102(b) of the Omnibus Budget Reconciliation Act (OBRA) of 1989 requires carriers to "monitor and profile physicians' billing patterns within each area or locality and provide comparative data to physicians whose utilization patterns vary significantly from other physicians in the same payment area or locality."

### HOW IS THE COMPARATIVE PERFORMANCE REPORT PROGRAM RELATED TO THE MEDICARE VOLUME PERFORMANCE STANDARD?

In the June 1990 special edition of the *Medicare Newsletter*, we explained the Medicare Volume Performance Standard (MVPS). You may find it useful to refer to this earlier article.

The MVPS is the Congressional judgment of an appropriate growth rate for Medicare Part B physician expenditures. The rate of increase in actual expenditures for physician services will be measured against the MVPS rate of increase. If actual physician expenditures rise at a rate lower than the MVPS rate of increase, a higher future annual payment update may be made than would otherwise apply. If the actual rate of increase in expenditures is greater than the MVPS rate of increase, the following year's payment update could be decreased from what it would otherwise be.

The MVPS does not distinguish medically necessary services from those which may be of questionable appropriateness. The Comparative Performance Report program has been developed to provide physicians with information on the number of services billed per 100 beneficiaries when that number is significantly higher than their peers. High billing rates may be a signal that a physician is billing for some services that are not appropriate, or using a different level of CPT-4 code than that used by his or her peers for the same services. Physicians who receive reports

are being provided with an opportunity to review their coding, billing and practice patterns to confirm the medical necessity of the services they are billing for at a higher frequency than their peers. Such a review can help to ensure that only medically necessary services are included when the Government determines compliance with the MVPS.

### WHAT SHOULD YOU DO IF YOU RECEIVE A COMPARATIVE PERFORMANCE REPORT?

The Comparative Performance Report program is informational. We encourage you to contact us to discuss the report, although Aetna Medicare will not require a response from any physician receiving a report. We acknowledge that the information provided to you may not incorporate certain important characteristics of your practice, such as case mix, subspecialty, and site of service. However, we believe that you will still find it useful as a starting point from which to analyze your billing and practice patterns. Please telephone our office at (405) 848-7711, or write to us at Aetna Life Insurance Company, Medicare Benefits Administration, 701 NW 63rd Street, Oklahoma City, OK 73116, if you wish to discuss the report.

### A FINAL NOTE ABOUT THE PROGRAM IN FUTURE YEARS

As HCFA and its carriers gain experience with the Comparative Performance Report program and new data and system capabilities become available, we anticipate improving the program to make the data provided to physicians as informative and useful as possible. Among these anticipated improvements, we are exploring the possibility of providing information to physicians who appear to provide fewer services than the norm; profiling physicians using ordering or rendering physician indicators rather than billing numbers; updating and expanding carrier specialty listings; and using Unique Physician Identification Numbers to avoid fragmenting the billing patterns of physicians who practice in more than one setting. Aetna Medicare welcomes comments from physicians about how the Comparative Performance Program may be improved. □

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## Guidelines change for treatment of resistant gonorrhea strains



Increasing levels of antibiotic-resistant *N gonorrhoeae*, along with the high probability that chlamydial infections coexist with gonococcal infections, are the reasons behind the Centers for Disease Control's revision of recommended treatment regimens for gonorrhea. The CDC's recommended regimen for treatment of uncomplicated urethral, endocervical, or rectal gonococcal infections is now as follows: ceftriaxone 250 mg IM once, plus doxycycline 100 mg orally 2 times a day for 7 days.

The new recommended treatment regimen is effective against all resistant and nonresistant strains of gonorrhea as well as possible coexisting chlamydial infections. Coexisting chlamydial infections have been documented in up to 45% of gonorrhea cases in some populations.

Factors influencing the CDC's revision of treatment guidelines, increased prevalence of resistant strains of gonorrhea, and potential coexisting chlamydial infections with no inexpensive and accurate test available for chlamydia, also have been considered in Oklahoma. While reported cases of gonorrhea in Oklahoma have declined significantly from the peak of 16,021 cases in 1982 to only 6,846 cases in 1989, the number of antibiotic-resistant gonorrhea cases has significantly increased over this period of time. The 157 cases of resistant gonorrhea reported in Oklahoma during 1989 were nearly triple the number reported in 1988. Resistant strains of gonorrhea within the infected population accounted for less than 0.10% of total reported cases in Oklahoma prior to 1985 but increased to 2.29% of gonococcal infections in 1989.

Prior to 1985, a greater percentage of resistant cases within Oklahoma were military cases or small pockets of civilian infection originating outside the state. It is now apparent that resistant strains of gonorrhea have become indigenous to Oklahoma, with a greater percentage of all cases now occurring among civilians, and those civilian cases are now reported from more counties each year. Until 1985, no more than six counties within the state reported resistant cases in any one year. In 1989, 16 counties within the state reported resistant cases of gonorrhea. Only 10% of those cases were military cases, and only 12 of 185 (6%) named contacts were from outside the state.

Until July 1990, the Oklahoma Sexually Transmitted Diseases (STD) Program maintained a policy of initiating immediate, labor-intensive epidemiologic follow-up of all resistant gonorrhea cases in an effort to contain the spread of these strains. However, even with this effort, reported cases tripled in 1989 over the previous year. Due to lack of personnel resources, the STD Program has been forced to eliminate these intensive epidemiologic efforts in favor of adopting the CDC's recommended treatment regimen where the first drug of choice for all gonococcal infections is medication effective against resistant strains of the disease.

For more complete details of the CDC's Recommended Treatment Guidelines for complicated gonococcal infections or other sexually transmitted diseases, refer to "1989 Sexually Transmitted Diseases Treatment Guidelines," MMWR Suppl., Vol. 38, No. S-8, Sep. 1, 1989. □

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## REACTION TIME

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### Enid physician applauds PRO stance

To the Editor: My compliments on the very nice editorial in the August OSMA JOURNAL ["CON on PRO"]. Sometimes there are things that may not be popular but must be said and I think you have presented it very well.

—J. Stan Miller, MD  
Enid

Studies have shown the single most important factor in a person choosing to receive the flu vaccine is the recommendation of his or her physician. November is the optimal time to administer flu vaccine to ensure maximal antibody protection through the peak of flu season in January and February.



## A Pointed Problem

By Joseph M. Sack, MD

A 7-year-old black male was brought to the emergency room late one evening. The mother reported a neighbor child had pushed the patient into a patch of prickly pear cactus approximately 30 minutes earlier. The child was clothed only in a pair of cotton shorts. Other past medical history was noncontributory.

Physical examination revealed a whimpering, fidgeting child with a multitude of cactus spines covering the base of the neck, entire back, abdomen, and more than half of each extremity. The cactus spines were approximately 3 to 5 mm long and were grouped in a clumped distribution that was consistent with the mother's description of a fall into prickly pear cactus.

From the Department of Family and Community Medicine, UKSM-Wichita.

Address correspondence and reprint requests to Dr Sack at UKSM-Wichita, 1010 N Kansas, Wichita, Kansas 67214.

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It was readily apparent that removal of individual spines with forceps would be exhausting for both patient and staff. Removal with several types of dressing tapes was tried without success. Melted wax was obtained from the physical therapy department for an attempt at peeling off the spines. This also was unsuccessful.

After surveying the available resources, a strip of plaster casting material was moistened and applied to a small area of spines. After the plaster strip dried it was pulled from the skin, along with nearly all of the cactus spines. The patient tolerated the trial procedure well. Plaster strips were then applied to the remaining affected skin, with hair dryers used to speed the drying process. After the dried plaster was removed, examination of the skin revealed only a few retained spines, which were removed with forceps. The plaster dust was washed off, and the child was released. Follow-up with the mother indicated that the child had no further problems with pain, itch or subsequent skin problems.

### DISCUSSION

Medical treatment of cactus spine injuries is without

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## WORTH REPEATING

a uniformly accepted modality. Traditional treatment is tedious removal with forceps. A Medline search of the literature disclosed a handful of innovative techniques described in letters and reports. These include: Avon's Aloe Smooth Peel-off Facial Mask,<sup>1</sup> adhesive or cellophane tape,<sup>2</sup> Hair-Off hair removal wax,<sup>3</sup> No-Tweeze depilatory wax<sup>4</sup> and water-soluble woodworking glue used with a piece of linen.<sup>5</sup>

Though removal of superficial foreign bodies is a skill mastered early in medical training, in this case, the task was multiplied a thousandfold. The technique employed on the patient, though novel, proved quite satisfactory, and unlike some of the materials listed above, plaster casting is a common product in most medical offices and emergency rooms.

The plaster technique has since been employed with equal effectiveness on other patients. □

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## IN MEMORIAM

### 1990

John Justice Batchelor, MD	January 8
Fred W. Sellers, MD	January 11
Dewey Lee Mathews, MD	January 18
Powell Everett Fry, MD	January 28
Alpha Louis Johnson, MD	February 3
Marshall W. Oppen, MD	February 12
Vincel Sundgren, MD	March 1
Glen Smith Kreger, MD	March 25
Martin James Fitzpatrick, MD	March 27
David Charles Lowry, MD	March 30
Robert Alan Johnston, MD	April 9
Hervey Adolph Foerster, MD	April 15
Paul E. Kaldahl, MD	May 4
Homer Vincent Archer, MD	May 8
Ray Maxwell Wadsworth, MD	June 11
John Howard Baker, Jr., MD	June 13
David Sprouse Dycus, MD	June 28
Paul Olden Shackelford, MD	July 27
David Shapiro, MD	August 11
Doyle L. Patton, MD	August 12
Edward McLain Thorp, MD	August 16
Murlin Knight Braly, MD	August 18



**College: The Undergraduate Experience in America.** By Ernest L. Boyer. New York: Harper & Row, 1986, pp 242, \$19.95.

In 1983, the Carnegie Foundation produced *High School: A Report on Secondary Education in America*. The present report describes the results of a study of college as a companion piece to the earlier work. *College* is the most thorough examination of undergraduate colleges ever undertaken. Ernest Boyer, president of the Carnegie Foundation for the Advancement of Teaching, and his staff spent 10,000 hours on campuses across the United States, conducting some 13,000 interviews with students, faculty, administrators, and parents.

Twenty-nine colleges and universities were included in this study, which began in the fall of 1984.

Campuses visited were carefully selected to represent the full spectrum in institutional types — liberal arts colleges, comprehensive colleges, doctorate-granting institutions, and research universities. Public and private institutions were included in the sample in the same proportion in which they are found among all American colleges and universities. Further, all areas of the country were represented.

We are given a close look inside the college at everything from a model class discussion to the condition of college libraries, to extracurricular campus life. The book contains some 54 graphs and charts, which provide an enormous amount of information on different subjects.

In addition to providing a comprehensive look at what takes place on campuses, the book proposes

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**DEATHS**

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**John Howard Baker, Jr., MD**  
**1917 - 1990**

Eufaula general practitioner J. Howard Baker, Jr., MD, died June 13, 1990. Born in Indianola, Okla, he attended the University of Arkansas School of Medicine, where he was graduated in 1943. He served on active duty with the US Army for almost two years during World War II, including 10 months overseas, and attained the rank of captain.

**Murlin Knight Braly, MD**  
**1923 - 1990**

M. Knight Braly, MD, a general practitioner in Woodward, died August 18, 1990. Dr Braly was born in Buffalo and earned his medical degree from the University of Oklahoma School of Medicine in 1947. He established his practice in Mooreland and later volunteered for active duty in the US Navy during the Korean war. After his discharge in 1952, Dr Braly moved to Woodward and continued his practice until his retirement in May of this year.

**Doyle L. Patton, MD**  
**1905 - 1990**

OSMA Life Member Doyle L. Patton, MD, a retired general practitioner, died August 12, 1990, in Coal-

gate. A native of Wooster, Ark, Dr Patton was a 1932 graduate of the University of Arkansas School of Medicine. He served as an officer in the US Marine Corps during World War II and practiced medicine in Midland, Tex, from 1945 to 1955, when he moved to Coalgate. Dr Patton retired in 1987.

**David Shapiro, MD**  
**1911 - 1990**

Longtime Tulsa physician David Shapiro, MD, died August 11, 1990. An OSMA Life Member since 1981, he was born in Brenham, Tex. He earned his medical degree at the University of Texas School of Medicine in 1938 and moved to Tulsa the following year.

**Edward McLain Thorp, MD**  
**1916 - 1990**

Edward M. Thorp, MD, OSMA Life Member and longtime Cushing family practitioner, died August 16, 1990. A native of Clinton and a 1942 graduate of the University of Oklahoma School of Medicine, Dr Thorp established his practice in Cushing in 1946. During World War II he served on active duty with the US Army Medical Corps, attaining the rank of captain. Dr Thorp retired in November 1984. ☐

sweeping changes in the way colleges approach their tasks — more specifically, a four-year course in general education that would not teach just “basics,” but would integrate science, history, and English into an exploration of seven core themes: work, language, heritage, art, institutions, nature, and identity. In all, 84 recommendations for change are made.

Throughout this thought-provoking book is Boyer's own vision about the role of colleges, and this ties the book together.

I am sure that this book will take a place among the landmark publications dealing with higher education in this country.

—Harris D. Riley, Jr., MD  
Oklahoma City

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Classified ads are \$25 each up to 50 words, plus 50 cents for each additional word. A word is one or more characters bounded by spaces. Box numbers will be assigned upon request and add 6 words to the total. Ads will not be accepted on the telephone.

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## Announcement

### American Medical Association Hospital Medical Staff Section Sixteenth Assembly Meeting November 29-December 3, 1990

Medical Staffs from across the country are encouraged to elect a medical staff representative to participate in the AMA-HMSS Assembly Meeting November 29-December 3, 1990 at The Peabody Orlando in Orlando, Florida.

The HMSS Assembly provides medical staffs with a unique opportunity to discuss and participate in the policymaking process of the AMA. In addition to the Assembly Meeting, an informative program on Economic Credentialing will be presented.

If you are unable to participate in the Orlando Meeting, we encourage you to call us with the name of your HMSS Representative.

For further information about the AMA-HMSS, please call (312) 464-4754 or 464-4761.

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**Warning:** Generally, this drug is not proposed for use in females and certainly must not be used during pregnancy. Neither is this drug proposed for use in pediatric, geriatric or cardio-renal patients with gastric or duodenal ulcer history. Nor should it be used in conjunction with mood-modifying drugs such as antidepressants, or in psychiatric patients in general.

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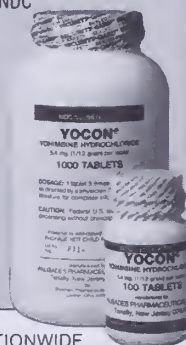
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#### References:

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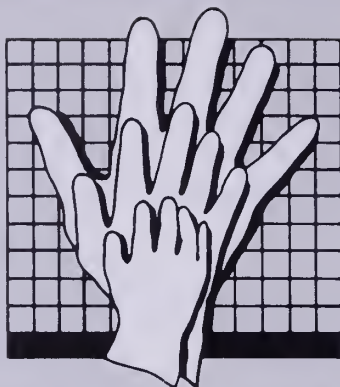
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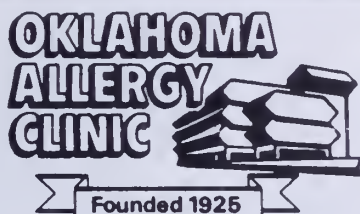
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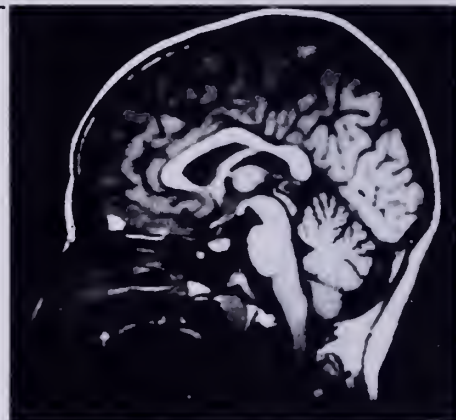
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## INSTRUCTIONS FOR AUTHORS

### Contributions

Articles submitted for publication, including Annual Meeting papers, become the sole property of the JOURNAL and must not have been published elsewhere. The Editorial Board reserves the right to edit any material submitted. Manuscripts must be typewritten, double-spaced, and submitted in duplicate. Receipt of manuscripts will be acknowledged, and unpublished manuscripts will be returned. The JOURNAL does not assume responsibility for the statements or opinions of any contributor.

### Style

All manuscripts should adhere to the style adopted by the American Medical Association as illustrated in *JAMA* and detailed in the AMA's *Manual of Style*. An abstract of 150 words or less should accompany each paper and should state (1) the exact question considered, (2) the key points of methodology and success of execution, (3) the key findings, and (4) the conclusion(s) directly supported by these findings. Footnotes, bibliographies, and legends for illustrations should be typewritten, double-spaced, on separate sheets. References are to be listed in the order of their appearance in the article.

### Illustrations

Illustrations other than the author's will not be accepted for publication unless accompanied by written permission from the original source. Illustrations should be labeled with the author's name and must be numbered in the order in which they are referred to in the article. The quality of all illustrations must be in keeping with the quality of the magazine.

### Reprints

Authors will receive reprint order forms from the Transcript Press, 222 East Eufaula, Norman, Oklahoma 73069, prior to publication of their articles. Other requests for reprints must be made to the Transcript Press within 30 days after publication.

### News

Readers are encouraged to submit news items of interest to Oklahoma physicians. Where dates of meetings, etc, are important, please remember that each issue closes on the first day of the *preceding* month and reaches subscribers in the latter half of the month of publication.

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**T**he Oklahoma State Medical Association (OSMAA) addresses the needs and concerns of physician spouses from around the state. The auxiliary is composed of nearly 1300 members who share the common belief that through our involvement we can be effective proponents of better health in our state. At the same time, these individuals have a diversity of talents and a common goal of better health for individual communities that make the OSMAA a unique organization of which to be a member.

This year, again, the OSMAA has decided to focus on membership as one of its major goals. The purpose of this goal is to affect membership both qualitatively and quantitatively. The organization wishes to enhance the quality of membership through the process of meeting the ever changing needs of its members. These needs range from social to intellectual to emotional in scope, with activities designed to meet these needs on all levels of auxiliary membership. In terms of increasing the membership, the basic purpose is to inform potential members of all the benefits of joining this organization.

The emphasis of the 1990-91 year will be Membership is a Team Effort. This effort was started in July at the OSMA office with a meeting of the state and county officers involved with membership. Through the sharing of problems and solutions these leaders identified specific needs to be worked on throughout the coming year. Mary Ann Deen (Mrs Gordon), former AMAA Membership Chairman, shared information from the national level to show how we are indeed a Team from national to state to county to the individual member.

The goals of the membership team include (1) the identification and recruitment of potential resident physician/medical school spouses (RP/MSS), (2) the identification and recruitment of potential members-at-large (MALs), (3) the recognition and appreciation

of current members for their auxiliary contributions and accomplishments, and (4) the recognition and appreciation of long-standing auxiliarians such as the spouses of retired or deceased physicians. Because of the decline in retained members, the emphasis of this year's membership team will be to recognize the needs of current members and to encourage membership of those who have not renewed their membership. OSMAA needs all of its members, whether they be RP/MSS, MALs, current, or retired members.

Membership in the OSMAA is indeed a privilege. To be eligible for this membership, the only requirement is that the person must be the spouse of a physician who is a member of their county medical society and of the OSMA. With your auxiliary membership comes a wealth of information and opportunities. The information that a member receives ranges from current legislation to current health issues and ways to become involved and have an impact in these areas. The opportunities arise from the ability to be involved in the auxiliary's efforts in financially assisting the American Medical Association Education and Research Foundation (AMA/ERF) and from the ability to use one's talents to become an effective leader in the organization. One of the most compelling reasons to be a part of the auxiliary is the individuals who make up the organization. Auxiliarians are a talented, resourceful, and exciting group of which to be a part.

The OSMA Auxiliary is a vast volunteer network that helps to bring a better quality of life to all people through its health programs and projects and its legislative efforts. And if you cannot always remain an "active" member, remain an informed member. Support OSMAA with your dues.

—Judy Critchfield (Mrs Carl)  
OSMAA, First Vice-President

■ **The increasing incidence of measles in Oklahoma** last year continues this year, according to the August 1990 issue of the Oklahoma State Department of Health's *Epidemiology Bulletin*. The newsletter says that in the first six months of the year, the state reported 162 cases to the Centers for Disease Control (CDC), compared with 100 cases for the same period in 1989 and only 8 cases in all of 1988. Nationally, 7,200 cases of measles were reported in the first half of 1990, a 42% increase over the same period in 1989. Among those cases were 35 deaths, including one in Oklahoma.

Beginning this year, school children in Oklahoma who are entering school for the first time in either kindergarten or grade one are required to have received two doses of measles vaccine on or after their first birthdays; the doses must have been at least one month apart. Questions about measles vaccinations should be directed to the OSDH Immunization Division, (405) 271-4073.

■ **The Journal of the American Medical Association (JAMA)** reports in its August 15 issue that in 1989 the typical graduate left medical school with a debt of \$42,374, up more than \$4,000 from a year before.

■ **In its August 1990 Oklahoma Aids Update**, the AIDS Division of the OSDH warns personal computer users about a diskette said to contain information about AIDS. Apparently the program on the diskette encrypts data on the user's hard drive, making it unreadable. The software is being distributed by a company called PC Cyborg and comes in a professionally produced mailer with a flyer entitled "AIDS Information — An Introductory Diskette." Persons receiving a copy of the diskette should not attempt to run it.

■ **October is "Talk About Prescriptions" Month.** This is the fifth year for the promotion and its sponsor, the National Council on Patient Information and Education (NCPPIE), has selected "Break the Rx Silence Barrier" for its theme. Physicians are urged to talk with patients about their prescriptions to ensure that misinformation or a lack of information does not contribute to what the NCPPIE calls the *other* drug problem — inadvertent medication errors and deliberate noncompliance.

■ **DUET patient education materials, expanded** and revised last year, are now available from the American Academy of Family Physicians (AAFP).

The 315 DUET monographs, developed in cooperation with the US Pharmacopeial Convention, Inc., provide patient information on commonly prescribed drugs or classes of drugs and are based on current USP data. They are printed in looseleaf form, suitable for photocopying. DUET packages, \$8 each, can be ordered by writing to: AAFP, Order Department, 8880 Ward Parkway, Kansas City, MO 64114-2797.

■ **Available positions in US residency programs** exceeded the number of applicants for the fourth consecutive year in 1989, according to the August 15 *Journal of the American Medical Association (JAMA)*. Vacant, or unfilled, positions increased by 27% between 1988 and 1989, says the 90th Annual Report on Medical Education in the United States. A decline in the number of graduates of accredited medical schools may be one reason for the discrepancy between available and filled positions, say Beverley Davies Rowley, PhD, and colleagues at the AMA.

■ **For physicians interested in pursuing CME** credits in neighboring states, the following courses, sponsored by the University of Kansas Medical Center, will be available in Kansas City: Fourth Annual Kansas City Lipid Club Symposium, October 31; Sutherland Institute Maxillofacial Trauma, November 2-3; Fourth Annual Center on Aging Postgraduate Symposium — Alzheimer's Disease 1990, New Dimensions in Research, November 8; Sexuality in Chronic Illness and Disability, November 16. For details on these courses, contact Bernice Jackson, University of Kansas Medical Center, Office of Continuing Education, 39th and Rainbow, Kansas City, KS 66103, (913) 588-4490.

■ **The OSMA's recently established field office** is ready to serve physicians and county medical societies throughout the state. Those wishing to arrange an on-site visit or assistance from the office should call OSMA Associate Director Robert W. Baker, 1-800-522-9452.

■ **The JOURNAL invites OSMA members to submit copies** of their favorite photographs or slides for possible use on the cover. Vertical formats are preferred, and both color and black-and-white can be used. Photos should depict either medicine or Oklahoma. For details, call Managing Editor Susan Records, (405) 843-9571 or 1-800-522-9453. □





# VASOTEC<sup>®</sup>

(ENALAPRIL MALEATE) MSD

VASOTEC is available in 2.5-mg, 5-mg, 10-mg, and 20-mg tablet strengths.

**Contraindications:** VASOTEC<sup>®</sup> (Enalapril Maleate, MSD) is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor.

**Warnings:** Angioedema. Angioedema of the face, extremities, lips, tongue, glottis, and/or larynx has been reported in patients treated with ACE inhibitors, including VASOTEC. In such cases, VASOTEC should be promptly discontinued and the patient carefully observed until the swelling disappears. In instances where swelling has been confined to the face and lips, the condition has generally resolved without treatment, although antihistamines have been useful in relieving symptoms. Angioedema associated with laryngeal edema may be fatal. **Where there is involvement of the tongue, glottis, or larynx likely to cause airway obstruction, appropriate therapy, e.g., subcutaneous epinephrine solution 1:1000 (0.3 mL to 0.5 mL), should be promptly administered.** (See ADVERSE REACTIONS.)

**Hypotension:** Excessive hypotension is rare in uncomplicated hypertensive patients treated with VASOTEC alone. Patients with heart failure given VASOTEC commonly have some reduction in blood pressure, especially with the first dose, but discontinuation of therapy for continuing symptomatic hypotension usually is not necessary when dosing instructions are followed; caution should be observed when initiating therapy. (See DOSAGE AND ADMINISTRATION.) Patients at risk for excessive hypotension, sometimes associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death, include those with the following conditions or characteristics: heart failure, hypotension, high-dose diuretic therapy, recent intensive diuresis or increase in diuretic dose, renal dialysis, or severe volume and/or salt depletion of any etiology. It may be advisable to eliminate the diuretic (except in patients with heart failure), reduce the diuretic dose, or increase salt intake cautiously before initiating therapy with VASOTEC in patients at risk for excessive hypotension who are able to tolerate such adjustments. (See PRECAUTIONS, Drug Interactions and ADVERSE REACTIONS.) In patients at risk for excessive hypotension, therapy should be started under very close medical supervision and such patients should be followed closely for the first two weeks of treatment and whenever the dose of enalapril and/or diuretic is increased. Similar considerations may apply to patients with ischemic heart disease or cardiovascular disease in whom an excessive fall in blood pressure could result in a myocardial infarction or cerebrovascular accident. If excessive hypotension occurs, the patient should be placed in the supine position and, if necessary, receive an intravenous infusion of normal saline. A transient hypotensive response is not a contraindication to further doses of VASOTEC, which usually can be given without difficulty once the blood pressure has stabilized. If symptomatic hypotension develops, a dose reduction or discontinuation of VASOTEC or concomitant diuretic may be necessary.

**Neutropenia/Agranulocytosis:** Another ACE inhibitor, captopril, has been shown to cause agranulocytosis and bone marrow depression, rarely in uncomplicated patients but more frequently in patients with renal impairment, especially if they also have a collagen vascular disease. Available data from clinical trials of enalapril are insufficient to show that enalapril does not cause agranulocytosis at similar rates. Foreign marketing experience has revealed several cases of neutropenia or agranulocytosis in which a causal relationship to enalapril cannot be excluded. Periodic monitoring of white blood cell counts in patients with collagen vascular disease and renal disease should be considered.

**Precautions:** General Impaired Renal Function. As a consequence of inhibiting the renin-angiotensin-aldosterone system, changes in renal function may be anticipated in susceptible individuals. In patients with severe heart failure whose renal function may depend on the activity of the renin-angiotensin-aldosterone system, treatment with ACE inhibitors, including VASOTEC, may be associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death.

In clinical studies in hypertensive patients with unilateral or bilateral renal artery stenosis, increases in blood urea nitrogen and serum creatinine were observed in 20% of patients. These increases were almost always reversible upon discontinuation of enalapril and/or diuretic therapy. In such patients, renal function should be monitored during the first few weeks of therapy.

Some patients with hypertension or heart failure with no apparent preexisting renal vascular disease have developed increases in blood urea and serum creatinine, usually minor and transient, especially when VASOTEC has been given concomitantly with a diuretic. This is more likely to occur in patients with preexisting renal impairment. Dosage reduction and/or discontinuation of the diuretic and/or VASOTEC may be required.

**Evaluation of patients with hypertension or heart failure should always include assessment of renal function.** (See DOSAGE AND ADMINISTRATION.)

**Hyperkalemia:** Elevated serum potassium ( $>5.7$  mEq/L) was observed in approximately 1% of hypertensive patients in clinical trials. In most cases these were isolated values which resolved despite continued therapy. Hyperkalemia was a cause of discontinuation of therapy in 0.28% of hypertensive patients. In clinical trials in heart failure, hyperkalemia was observed in 3.8% of patients, but was not a cause for discontinuation.

Risk factors for the development of hyperkalemia include renal insufficiency, diabetes mellitus, and the concomitant use of potassium-sparing diuretics, potassium supplements, and/or potassium-containing salt substitutes, which should be used cautiously, if at all, with VASOTEC. (See Drug Interactions.)

**Surgery/Anesthesia:** In patients undergoing major surgery or during anesthesia with agents that produce hypotension, enalapril may block angiotensin II formation secondary to compensatory renin release. If hypotension occurs and is considered to be due to this mechanism, it can be corrected by volume expansion.

#### Information for Patients

**Angioedema:** Angioedema, including laryngeal edema, may occur especially following the first dose of enalapril. Patients should be so advised and told to report immediately any signs or symptoms suggesting angioedema (swelling of face, extremities, eyes, lips, tongue, difficulty in swallowing or breathing) and to take no more drug until they have consulted with the prescribing physician.

**Hypotension:** Patients should be cautioned to report lightheadedness, especially during the first few days of therapy. If actual syncope occurs, the patients should be told to discontinue the drug until they have consulted with the prescribing physician.

All patients should be cautioned that excessive perspiration and dehydration may lead to an excessive fall in blood pressure because of reduction in fluid volume. Other causes of volume depletion such as vomiting or diarrhea may also lead to a fall in blood pressure; patients should be advised to consult with the physician.

**Hyperkalemia:** Patients should be told not to use salt substitutes containing potassium without consulting their physician.

**Neutropenia:** Patients should be told to report promptly any indication of infection (e.g., sore throat, fever) which may be a sign of neutropenia.

**NOTE:** As with many other drugs, certain advice to patients being treated with enalapril is warranted. This information is intended to aid in the safe and effective use of this medication. It is not a disclosure of all possible adverse or intended effects.

#### Drug Interactions

**Hypotension: Patients on Diuretic Therapy:** Patients on diuretics and especially those in whom diuretic therapy was recently instituted may occasionally experience an excessive reduction of blood pressure after initiation of therapy with enalapril. The possibility of hypotensive effects with enalapril can be minimized by either discontinuing the diuretic or increasing the salt intake prior to initiation of treatment with enalapril. If it is necessary to continue the diuretic, provide close medical supervision after the initial dose for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and DOSAGE AND ADMINISTRATION.)

**Agents Causing Renin Release:** The antihypertensive effect of VASOTEC is augmented by antihypertensive agents that cause renin release (e.g., diuretics).

**Other Cardiovascular Agents:** VASOTEC has been used concomitantly with beta-adrenergic-blocking agents, methylglucosides, nitrates, calcium-blocking agents, hydralazine, prazosin, and digoxin without evidence of clinically significant adverse interactions.

**Agents Increasing Serum Potassium:** VASOTEC attenuates potassium loss caused by thiazide-type diuretics, potassium-sparing diuretics (e.g., spironolactone, furosemide, or amiloride), potassium supplements, or potassium-containing salt substitutes may lead to significant increases in serum potassium. Therefore, if concomitant use of these agents is indicated because of demonstrated hypokalemia, they should be used with caution and with frequent monitoring of serum potassium. Potassium-sparing agents should generally not be used in patients with heart failure receiving VASOTEC.

**Lithium:** Lithium toxicity has been reported in patients receiving lithium concomitantly with drugs which cause elimination of sodium, including ACE inhibitors. A few cases of lithium toxicity have been reported in patients receiving concomitant VASOTEC and lithium and were reversible upon discontinuation of both drugs. It is recommended that serum lithium levels be monitored frequently if enalapril is administered concomitantly with lithium.

**Pregnancy—Category C:** There was no fetotoxicity or teratogenicity in rats treated with up to 200 mg/kg/day of enalapril (333 times the maximum human dose). Fetotoxicity, expressed as a decrease in average fetal weight, occurred in rats given 1200 mg/kg/day of enalapril but did not occur when these animals were supplemented with saline. Enalapril was not teratogenic in rabbits. However, maternal and fetal toxicity occurred in some rabbits at doses of 1 mg/kg/day or more. Saline supplementation prevented the maternal and fetal toxicity seen at doses of 3 and 10 mg/kg/day, but not at 30 mg/kg/day (50 times the maximum human dose).

Radioactivity was found to cross the placenta following administration of labeled enalapril to pregnant hamsters. There are no adequate and well-controlled studies of enalapril in pregnant women. However, data are available that show enalapril crosses the human placenta. Because the risk of fetal toxicity with the use of ACE inhibitors has not

been clearly defined, VASOTEC<sup>®</sup> (Enalapril Maleate, MSD) should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Postmarketing experience with all ACE inhibitors thus far suggests the following with regard to pregnancy outcome. Inadvertent exposure limited to the first trimester of pregnancy has not been reported to affect fetal outcome adversely. Fetal exposure during the second and third trimesters of pregnancy has been associated with fetal and neonatal morbidity and mortality.

When ACE inhibitors are used during the later stages of pregnancy, there have been reports of hypotension and decreased renal perfusion in the newborn. Oligohydramnios in the mother has also been reported, presumably representing decreased renal function in the fetus. Infants exposed *in utero* to ACE inhibitors should be closely observed for hypotension, oliguria, and hyperkalemia. If oliguria occurs, attention should be directed toward support of blood pressure and renal perfusion with the administration of fluids and pressors as appropriate. Problems associated with prematurity such as patent ductus arteriosus have occurred in association with maternal use of ACE inhibitors, but it is not clear whether they are related to ACE inhibition, maternal hypotension, or the underlying prematurity.

**Nursing Mothers:** Milk in lactating rats contains radioactivity following administration of <sup>14</sup>C enalapril maleate. It is not known whether this drug is secreted in human milk. Because many drugs are secreted in human milk, caution should be exercised when VASOTEC is given to a nursing mother.

**Pediatric Use:** Safety and effectiveness in children have not been established.

**Adverse Reactions:** VASOTEC has been evaluated for safety in more than 10,000 patients, including over 1000 patients treated for one year or more. VASOTEC has been found to be generally well tolerated in controlled clinical trials involving 2987 patients.

**HYPERTENSION:** The most frequent clinical adverse experiences in controlled trials were headache (5.2%), dizziness (4.3%), and fatigue (3%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in controlled clinical trials were diarrhea (1.4%), nausea (1.4%), rash (1.4%), cough (1.3%), orthostatic effects (1.2%), and asthenia (1.1%).

**HEART FAILURE:** The most frequent clinical adverse experiences in both controlled and uncontrolled trials were dizziness (7.9%), hypotension (6.7%), orthostatic effects (2.2%), syncope (2.2%), cough (2.2%), chest pain (2.1%), and diarrhea (2.1%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in both controlled and uncontrolled clinical trials were fatigue (1.8%), headache (1.8%), abdominal pain (1.6%), asthenia (1.6%), orthostatic hypotension (1.6%), vertigo (1.6%), angina pectoris (1.5%), nausea (1.3%), vomiting (1.3%), bronchitis (1.3%), dyspnea (1.3%), urinary tract infection (1.3%), rash (1.3%), and myocardial infarction (1.2%).

Other serious clinical adverse experiences occurring since the drug was marketed or adverse experiences occurring in 0.5% to 1% of patients with hypertension or heart failure in clinical trials in order of decreasing severity within each category:

**Cardiovascular:** Cardiac arrest, myocardial infarction or cerebrovascular accident, possibly secondary to excessive hypotension in high-risk patients (see WARNINGS, Hypotension); pulmonary embolism and infarction; pulmonary edema, rhythm disturbances, atrial fibrillation, palpitation.

**Digestive:** Ileus, pancreatitis, hepatitis (hepatocellular or cholestatic jaundice), melena, anorexia, dyspepsia, constipation, glossitis, stomatitis, dry mouth.

**Musculoskeletal:** Muscle cramps.

**Nervous/Psychiatric:** Depression, confusion, ataxia, somnolence, insomnia, nervousness, paresthesia.

**Urogenital:** Renal failure, oliguria, renal dysfunction (see PRECAUTIONS and DOSAGE AND ADMINISTRATION).

**Respiratory:** Bronchospasm, rhinorrhea, sore throat and hoarseness, asthma, upper respiratory infection.

**Skin:** Exfoliative dermatitis, toxic epidermal necrolysis, Stevens-Johnson syndrome, herpes zoster, erythema multiforme, urticaria, pruritus, alopecia, flushing, hyperhidrosis.

**Special Senses:** Blurred vision, taste alteration, anosmia, tinnitus, conjunctivitis, dry eyes, tearing.

A symptom complex has been reported which may include a positive ANA, an elevated erythrocyte sedimentation rate, arthralgias/arthritis, myalgias, fever, serositis, vasculitis, leukocytosis, eosinophilia, photosensitivity, rash, and other dermatologic manifestations.

**Angioedema:** Angioedema has been reported in patients receiving VASOTEC (0.2%). Angioedema associated with laryngeal edema may be fatal. If angioedema of the face, extremities, lips, tongue, glottis, and/or larynx occurs, treatment with VASOTEC should be discontinued and appropriate therapy instituted immediately. (See WARNINGS.)

**Hypotension:** In the hypertensive patients, hypotension occurred in 0.9% and syncope occurred in 0.5% of patients following the initial dose or during extended therapy. Hypotension or syncope was a cause for discontinuation of therapy in 0.1% of hypertensive patients. In heart failure patients, hypotension occurred in 6.7% and syncope occurred in 2.2% of patients. Hypotension or syncope was a cause for discontinuation of therapy in 1.9% of patients with heart failure. (See WARNINGS.)

#### Clinical Laboratory Test Findings

**Serum Electrolytes:** Hyperkalemia (see PRECAUTIONS), hyponatremia.

**Creatinine, Blood Urea Nitrogen:** In controlled clinical trials, minor increases in blood urea nitrogen and serum creatinine, reversible upon discontinuation of therapy, were observed in about 0.2% of patients with essential hypertension treated with VASOTEC alone. Increases are more likely to occur in patients receiving concomitant diuretics or in patients with renal artery stenosis. (See PRECAUTIONS.) In patients with heart failure who were also receiving diuretics with or without digitalis, increases in blood urea nitrogen or serum creatinine, usually reversible upon discontinuation of VASOTEC and/or other concomitant diuretic therapy, were observed in about 4.7% of patients. Increases in blood urea nitrogen or creatinine were a cause for discontinuation in 1.2% of patients.

**Hemoglobin and Hematocrit:** Small decreases in hemoglobin and hematocrit (mean decreases of approximately 0.3 g% and 1.0 vol%, respectively) occur frequently in either hypertension or heart failure patients treated with VASOTEC but are rarely of clinical importance unless another cause of anemia coexists. In clinical trials, less than 0.1% of patients discontinued therapy due to anemia.

**Other (Causal Relationship Unknown):** In marketing experience, rare cases of neutropenia, thrombocytopenia, and bone marrow depression have been reported. A few cases of hemolysis have been reported in patients with G6PD deficiency.

**Liver Function Tests:** Elevations of liver enzymes and/or serum bilirubin have occurred.

**Dosage and Administration: Hypertension.** In patients who are currently being treated with a diuretic, symptomatic hypotension occasionally may occur following the initial dose of VASOTEC. The diuretic should, if possible, be discontinued for two to three days before beginning therapy with VASOTEC to reduce the likelihood of hypotension. (See WARNINGS.) If the patient's blood pressure is not controlled with VASOTEC alone, diuretic therapy may be resumed. If the diuretic cannot be discontinued, an initial dose of 2.5 mg should be used under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, Drug Interactions.)

The recommended initial dose in patients not on diuretics is 5 mg once a day. Dosage should be adjusted according to blood pressure response. The usual dosage range is 10 to 40 mg per day administered in a single dose or in two divided doses. In some patients treated once daily, the antihypertensive effect may diminish toward the end of the dosing interval. In such patients, an increase in dosage or twice-daily administration should be considered. If blood pressure is not controlled with VASOTEC alone, a diuretic may be added.

Concomitant administration of VASOTEC with potassium supplements, potassium salt substitutes, or potassium-sparing diuretics may lead to increases of serum potassium (see PRECAUTIONS).

**Dosage Adjustment in Hypertensive Patients with Renal Impairment:** The usual dose of enalapril is recommended for patients with a creatinine clearance  $> 30$  mL/min (serum creatinine of up to approximately 3 mg/dL). For patients with creatinine clearance  $\leq 30$  mL/min (serum creatinine  $\geq 3$  mg/dL), the first dose is 2.5 mg once daily. The dose may be titrated upward until blood pressure is controlled or to a maximum of 40 mg daily.

**Heart Failure:** VASOTEC is indicated as adjunctive therapy with diuretics and digitalis. The recommended starting dose is 2.5 mg once or twice daily. After the initial dose of VASOTEC, the patient should be observed under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, Drug Interactions.) If possible, the dose of the diuretic should be reduced, which may diminish the likelihood of hypotension. The appearance of hypotension after the initial dose of VASOTEC does not preclude subsequent careful dose titration with the drug, following effective management of the hypotension. The usual therapeutic dosing range for the treatment of heart failure is 5 to 20 mg daily given in two divided doses. The maximum daily dose is 40 mg. Once-daily dosing has been effective in a controlled study, but nearly all patients in this study were given 40 mg, the maximum recommended daily dose, and there has been much more experience with twice-daily dosing. In addition, in a placebo-controlled study which demonstrated reduced mortality in patients with severe heart failure (NYHA Class IV), patients were treated with 2.5 to 40 mg per day of VASOTEC, almost always administered in two divided doses (See CLINICAL PHARMACOLOGY, Pharmacodynamics and Clinical Effects.) Dosage may be adjusted depending upon clinical or hemodynamic response. (See WARNINGS.)

**Dosage Adjustment in Patients with Heart Failure and Renal Impairment or Hyponatremia:** In patients with heart failure who have hyponatremia (serum sodium  $< 130$  mEq/L) or with serum creatinine  $\geq 1.5$  mg/dL, therapy should be initiated at 2.5 mg daily under close medical supervision. (See DOSAGE AND ADMINISTRATION, Heart Failure, WARNINGS, and PRECAUTIONS, Drug Interactions.) The dose may be increased to 2.5 mg b.i.d. then 5 mg b.i.d. and higher as needed, usually at intervals of four days or more, if at the time of dosage adjustment there is not excessive hypotension or significant deterioration of renal function. The maximum daily dose is 40 mg.

For more detailed information, consult your MSD Representative or see Prescribing Information, Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, PA 19380.

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For a Brief Summary of Prescribing Information, please see the last page of this advertisement.

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# JOURNAL

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OKLAHOMA STATE MEDICAL ASSOCIATION  
NOVEMBER 1990



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LEADERS IN MEDICINE

Joe L. Duer, MD



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1. Data on file, G.D. Searle & Co. 2. 1988 Joint National Committee: The 1988 report of the Joint National Committee on Detection, Evaluation, and Treatment of High Blood Pressure. *Arch Intern Med* 1988;148:1023-1038.

### BRIEF SUMMARY

**Contraindications:** Severe LV dysfunction (see *Warnings*), hypotension (systolic pressure < 90 mm Hg) or cardiogenic shock, sick sinus syndrome (if no pacemaker is present), 2nd- or 3rd-degree AV block (if no pacemaker is present), atrial flutter/fibrillation with an accessory bypass tract (eg, WPW or LGL syndromes), hypersensitivity to verapamil.

**Warnings:** Verapamil should be avoided in patients with severe LV dysfunction (eg, ejection fraction < 30%) or moderate to severe symptoms of cardiac failure and in patients with any degree of ventricular dysfunction if they are receiving a beta-blocker. Control milder heart failure with optimum digitalization and/or diuretics before Calan SR is used. Verapamil may occasionally produce hypotension. Elevations of liver enzymes have been reported. Several cases have been demonstrated to be produced by verapamil. Periodic monitoring of liver function in patients on verapamil is prudent. Some patients with paroxysmal and/or chronic atrial flutter/fibrillation and an accessory AV pathway (eg, WPW or LGL syndromes) have developed an increased antegrade conduction across the accessory pathway bypassing the AV node, producing a very rapid ventricular response or ventricular fibrillation after receiving I.V. verapamil (or digitalis). Because of this risk, oral verapamil is contraindicated in such patients. AV block may occur (2nd- and 3rd-degree, 0.8%). Development of marked 1st-degree block or progression to 2nd- or 3rd-degree block requires reduction in dosage or, rarely, discontinuation and institution of appropriate therapy. Sinus bradycardia, 2nd-degree AV block, sinus arrest, pulmonary edema and/or severe hypotension were seen in some critically ill patients with hypertrophic cardiomyopathy who were treated with verapamil.

**Precautions:** Verapamil should be given cautiously to patients with impaired hepatic function (in severe dysfunction use about 30% of the normal dose) or impaired renal function, and patients should be monitored for abnormal prolongation of the PR interval or other signs of overdosage. Verapamil may decrease neuromuscular transmission in patients with Duchenne's muscular dystrophy and may prolong recovery from the neuromuscular blocking agent vecuronium. It may be necessary to decrease verapamil dosage in patients with attenuated neuromuscular transmission. Combined therapy with beta-adrenergic blockers and verapamil may result in additive negative effects on heart rate, atrioventricular conduction and/or cardiac contractility; there have been reports of excessive bradycardia and AV block, including complete heart block. The risks of such combined therapy may outweigh the benefits. The combination should be used only with caution and close monitoring. Decreased metoprolol clearance may occur with combined use. Chronic verapamil treatment can increase serum digoxin levels by 50% to 75% during the first week of therapy, which can result in digitalis toxicity. In patients with hepatic cirrhosis, verapamil may reduce total body clearance and extrarenal clearance of digoxin. The digoxin dose should be reduced when verapamil is given, and the patient carefully monitored. Verapamil will usually have an additive effect in patients receiving blood-pressure-lowering agents. Disopyramide should not be given within 48 hours before or 24 hours after verapamil administration.

Concomitant use of flecainide and verapamil may have additive effects on myocardial contractility, AV conduction, and repolarization. Combined verapamil and quinidine therapy in patients with hypertrophic cardiomyopathy should be avoided, since significant hypotension may result. Concomitant use of lithium and verapamil may result in a lowering of serum lithium levels or increased sensitivity to lithium. Patients receiving both drugs must be monitored carefully. Verapamil may increase carbamazepine concentrations during combined use. Rifampin may reduce verapamil bioavailability. Phenobarbital may increase verapamil clearance. Verapamil may increase serum levels of cyclosporin. Concomitant use of inhalation anesthetics and calcium antagonists needs careful titration to avoid excessive cardiovascular depression. Verapamil may potentiate the activity of neuromuscular blocking agents (curare-like and depolarizing); dosage reduction may be required. Adequate animal carcinogenicity studies have not been performed. One study in rats did not suggest a tumorigenic potential, and verapamil was not mutagenic in the Ames test. Pregnancy Category C. There are no adequate and well-controlled studies in pregnant women. This drug should be used during pregnancy, labor, and delivery only if clearly needed. Verapamil is excreted in breast milk; therefore, nursing should be discontinued during verapamil use.

**Adverse Reactions:** Constipation (7.3%), dizziness (3.3%), nausea (2.7%), hypotension (2.5%), headache (2.2%), edema (1.9%), CHF, pulmonary edema (1.8%), fatigue (1.7%), dyspnea (1.4%), bradycardia: HR < 50/min (1.4%), AV block: total 1°, 2°, 3° (1.2%), 2° and 3° (0.8%), rash (1.2%), flushing (0.6%), elevated liver enzymes. The following reactions, reported in 1.0% or less of patients, occurred under conditions where a causal relationship is uncertain: angina pectoris, atrioventricular dissociation, chest pain, claudication, myocardial infarction, palpitations, purpura (vasculitis), syncope, diarrhea, dry mouth, gastrointestinal distress, gingival hyperplasia, ecchymosis or bruising, cerebrovascular accident, confusion, equilibrium disorders, insomnia, muscle cramps, paresthesia, psychotic symptoms, shakiness, somnolence, arthralgia and rash, exanthema, hair loss, hyperkeratosis, macules, sweating, urticaria, Stevens-Johnson syndrome, erythema multiforme, blurred vision, gynecomastia, increased urination, spotty menstruation, impotence. 12/21/89 • P90-W198V

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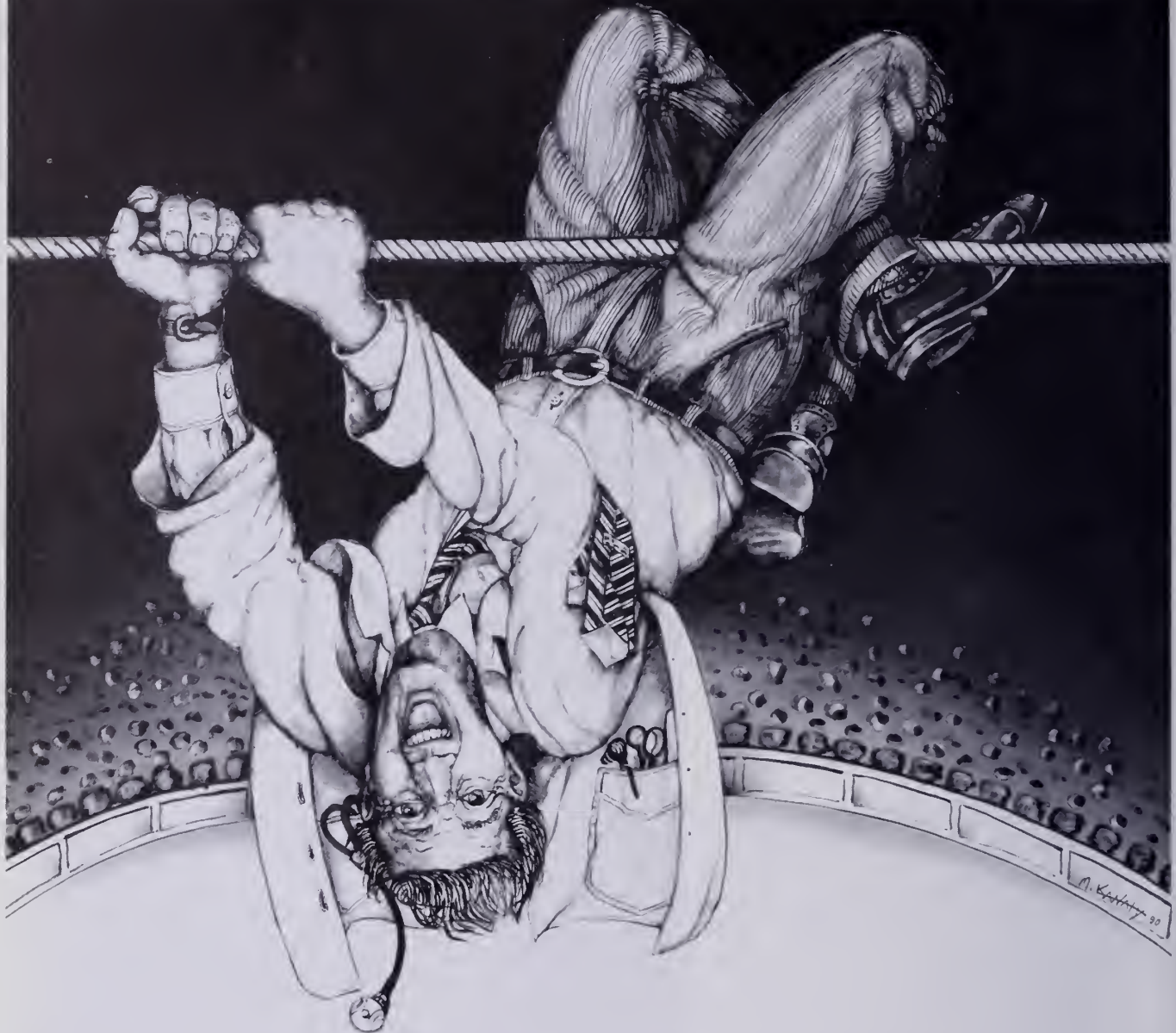
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JOURNAL (ISSN 0030-1876) (USPS 285-000) is the official publication of the Oklahoma State Medical Association and is published monthly under the direction of the OSMA Board of Trustees at 601 Northwest Expressway, Oklahoma City, OK 73118. Second class postage paid at Oklahoma City, OK 73125. POSTMASTER: Send address changes to JOURNAL, c/o Oklahoma State Medical Association, 601 Northwest Expressway, Oklahoma City, OK 73118.

Subscription to the JOURNAL is included in membership dues. All other subscriptions are \$30 per year. Single issues are \$3 per copy, prepaid, subject to availability.

National advertising representative:  
State Medical Journal Advertising Bureau, Inc., 711 South Boulevard, Oak Park, IL 60302, phone (708) 383-8800.

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# JOURNAL

OKLAHOMA STATE MEDICAL ASSOCIATION

NOVEMBER 1990

VOL. 83, NO. 11

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## ON THE COVER



This month the JOURNAL continues its Leaders in Medicine series with the biography of longtime Woodward physician Joe L. Duer, MD. Story on page 550.

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- Positive direct Coombs' tests have been reported during treatment with cephalosporins.
- Ceclor should be administered with caution in the presence of markedly impaired renal function. Although dosage adjustments in moderate to severe renal impairment are usually not required, careful clinical observation and laboratory studies should be made.
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- Safety and effectiveness have not been determined in pregnancy, lactation, and infants less than one month old. Ceclor penetrates mother's milk. Exercise caution in prescribing for these patients.

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- Stevens-Johnson syndrome, toxic epidermal necrolysis,

and anaphylaxis have been reported rarely. Anaphylaxis may be more common in patients with a history of penicillin allergy.

- Gastrointestinal (mostly diarrhea): 2.5%
- Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment.
- As with some penicillins and some other cephalosporins, transient hepatitis and cholestatic jaundice have been reported rarely.
- Rarely, reversible hyperactivity, nervousness, insomnia, confusion, hypertension, dizziness, and somnolence have been reported.
- Other: eosinophilia, 2%; genital pruritus or vaginitis, less than 1% and, rarely, thrombocytopenia and reversible interstitial nephritis.

#### Abnormalities in laboratory results of uncertain etiology

- Slight elevations in hepatic enzymes.
- Transient lymphocytosis, leukopenia, and, rarely, hemolytic anemia and reversible neutropenia.
- Rare reports of increased prothrombin time with or without clinical bleeding in patients receiving Ceclor and Coumadin concomitantly.
- Abnormal urinalysis; elevations in BUN or serum creatinine.
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## The Golden Age of Medicine

Choosing a career may be difficult, and the long years of preparation for a professional career in medicine are especially daunting. Today, many veterans of medicine are depressed and pessimistic, while feeling a lack of public esteem and a government-induced loss of professional autonomy and freedom. This discontent has become contagious to the students presently choosing a life's work; selection of health careers is now at a low ebb in our society.

There is an ancient adage: "... And this, too, shall pass away." This eternally true statement of the inevitability of change in human affairs reminds us that the present deplorable state of medical economics and of government repression is not permanent — it shall not last. And, as we are citizens of a democratic republic, we can know that the US government will eventually come to its senses and lift the burden of medical socialism from the American people. The repressions of creativity and the economic dislocations inherent in government medicine are even now becoming evident to the people and to the US Congress. Thus, we can know that constructive solutions promulgated by medicine and the American people will someday soon solve the current health care crisis.

So we Ancient Mariner Physicians, who have lamented so long with the Albatross of government rules hung around our neck, must be aware that our youthful followers do not choose when to be born, nor the epoch when they are to practice medicine. It is true that a more caring kind of medicine was practiced before Medicare, but it is possible in any age for

medical science to transcend politics and economics. The needs of the sick, and human anatomy and physiology remain unchanged by politics or by economic systems. The expert physician has a universal substrate, regardless of the times, on whom to exercise a science of healing seasoned with altruism. The politicians may inhibit it, or disparage it, but they cannot take it away. Thus it is that the young person with a true hankering for a health career should be encouraged, despite the damaging political conditions of the present. Today's repressions will be resolved, but study can make medical science a permanent personal asset. Medical skills give special opportunities to express the nobler part of the human spirit, in any epoch.

Nowadays some physicians mourn the passage of the Golden Age of Medicine as if it were a historical age, delimited by years. But in reality, every individual physician has a personal Golden Age, when the skills are sharp, the medical science produces happy outcomes, patient interactions are emotionally rewarding, and opportunities to do good abound. Physicians have always, since the time of Hippocrates, experienced an individual Golden Age of Medicine within themselves, regardless of the political and economic climate where they work. The young student considering a career in health service may be reminded of this eternal truth, even today.

*Ray V. McIntyre, M.D.*

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## Thanksgiving? Yes!

We have much for which to be thankful, this November 1990.

In the United States Senate, Don Nickles appears to have rescued America from the worst of CLIA-88. With the assistance of David Boren, Senator Nickles pulled off a feat that can only be called stunning. He successfully amended the report of the Senate Appropriations Committee to require HCFA to redraft and republish the CLIA personnel regulations, provide for a comment period and Congressional oversight, and provide to Congress detailed cost-benefit analyses of the new personnel regulations established. Not only did Senator Nickles accomplish this legislative gem, he even persuaded the principal Senate sponsor of CLIA-88 (Mikulsky of Maryland) to vote for the Nickles language! We in Oklahoma took pens in hand to write our delegation for help. I hope that we will all send Senator Nickles a note of thanks. He deserves it.

It is also time to contact our delegates to the OSMA House of Delegates and thank them for taking time from their practices to produce sound policy for our association. In any representative body there are times in which neither the members nor their elected representatives are totally sure that what is being done is either right or representative. As this is written the OSMA office has received over 800 responses to the member survey mailed in September, a truly large response with essentially no statistical chance of error. On every question OSMA members agreed overwhelmingly with the actions taken by the house, and with very similar percentages. Unified



AMA membership was approved by a 3 to 1 margin, a single reimbursement zone by 12 to 1. Your delegates deserve your thanks.

In quiet moments, we should all give thanks that we are physicians — chosen from among many to live our lives as members of an old and honored profession. The vicissitudes of bureaucratic gnats aside, no other human calling has so rich a mixture of science, intellectual problems, emotions, and interaction with the varied personalities of Homo sapiens. The reasons that we entered medicine are enduring. The satisfactions are lasting. We have been blessed.

Last but not least, we should also give thanks that we live and practice in Oklahoma. We live in homes, not the overpriced shoeboxes of San Francisco or Boston. We can reach our offices and hospitals in minutes, not hours of bumper-to-bumper commutes. We not only know our neighbors, they are even friends. We enjoy four seasons, but do not have to withstand the endless winters of Lake Superior or the relentless heat of the Rio Grande. Medicine in Oklahoma is a community of friends, not a collection of feuding factions. We have shared values of quality, independence, and integrity. In Oklahoma one is judged by what he or she can do, not what one was or what one's parents did. We live in one of the most open climates in all America, with considerable public regard, and remarkable professional freedom. Let us give thanks for all that we have. And let us pledge that we will exert whatever effort is necessary to keep intact the tremendous heritage of Oklahoma medicine.

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## Office Management of Patients Infected with the Human Immunodeficiency Virus (HIV) — 1990

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Human immunovirus (HIV) infections and related diseases continue to consume a major portion of health care resources nationwide and in the state of Oklahoma. There were 162 new cases of acquired immunodeficiency syndrome (AIDS) diagnosed in Oklahoma in 1989 and an additional 347 cases of other HIV infections were reported. It appears almost certain that few physicians in practice, if any, will escape seeing HIV-related illnesses. It is, therefore, important that all physicians have an adequate understanding of the basic management of these related illnesses. The reader is referred to our original article in the October 1988 issue of the *Journal of the Oklahoma State Medical Association*, which outlined the office management of HIV-positive patients.<sup>1</sup> The current paper represents an update on this problem. Many of the original tenets and descriptions of management remain the same, and they will not be repeated.

Originally the HIV diseases were divided into three categories: AIDS, AIDS-related complex (ARC), and asymptomatic carriers. Although the definitions of these conditions remain the same, their clinical significances are more nebulous, since it is now recognized that this disease has a spectrum of illnesses that most HIV-infected patients will eventually experience. The original definition of full-blown AIDS was made for epidemiologic purposes and this diagnosis does not always signify the end stage of the

illness. It is now recognized that some persons with severe T-cell depletion, who do not meet the original or appended definitions of AIDS, are nevertheless near the end of a fatal illness, whereas some persons who meet the definition of full-blown AIDS are less sick clinically and many have relatively better immune function than those with severe ARC. Likewise, some asymptomatic patients may have severe immunologic dysfunction.

The natural history of HIV infections is still unpredictable for any individual patient, but overall follows a fairly understandable progression. Of those persons recently infected, approximately 5% per year will develop either HIV-related malignancies or severe opportunistic infections, which defines AIDS. At 8 to 10 years, approximately 50% of infected individuals will develop clinical AIDS.<sup>2</sup> It appears that most, and possibly all, of those persons with HIV infection will eventually develop severe T-cell depletion and subsequent immunologic dysfunction which is irreversible and fatal. Specific treatment of HIV infection may prevent or delay this deterioration. Currently control of the disease, rather than cure, is possible. An analogy may be made with other chronic illnesses such as diabetes and hypertension, whereby control of the disease can be achieved and prolonged survival may be possible. The array of therapeutic interventions has rapidly improved, and thus an optimistic outlook should be conveyed to the patient. It is, therefore, imperative that ALL patients with HIV infection be seen and examined regularly by a physician.

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## Initial General Screen

It is important that all persons who have tested positive with initial screening ELISA tests have additional confirmatory tests. The Western blot is still the standard confirmatory test, and all persons who have a strongly positive Western blot test should be considered to be infected by the virus. Falsely positive Western blot tests occur, but they are extremely rare. More commonly the physician may be confused by the report of an indeterminate Western blot test. Most of these patients do not have HIV infection, but a small percentage will have either very early or late HIV infection.<sup>3</sup> Those with late infections will invariably be symptomatic and usually do not pose a difficulty in diagnosis. Those with early infection are usually asymptomatic but often have a history of high risk behavior or otherwise have known exposure to the virus. Those with indeterminate test results and no known risk factors or exposure will likely be subsequently shown not to have infection with HIV.<sup>4,5</sup> Nevertheless, an indeterminate result requires careful follow-up and additional testing. Such additional testing may include the HIVagen, p24 antigen testing, polymerase chain reaction, viral cultures, and assessment of immunologic function. Those physicians who are not comfortable with their assessment of these patients are advised to refer such patients to centers or physicians who are skilled in testing and evaluation of HIV infections.

Physicians should be familiar with the Oklahoma laws regarding the reporting of HIV infections. Like certain other communicable diseases, HIV infections are reportable, and all persons with positive HIV serology should be reported to the Oklahoma State Department of Health unless they have been tested at an anonymous testing center. Similarly, all persons who have developed clinical AIDS are reportable by law. Separate forms for reporting either HIV infection or AIDS are available from either state or county health departments.

For those patients with a confirmed positive test, a complete physical examination is necessary in order to establish a baseline, and to identify any signs of symptomatic disease. A search for coexisting sexually transmitted diseases should be done. Particular attention is directed toward identifying oral thrush or other candida infections, hairy leukoplakia, and ocular findings such as cotton wool spots in the optic fundi (which represent primary HIV retinitis) or classical CMV retinitis. Such findings are usually associated with immunologic dysfunction. Severe seborrheic dermatitis or atopic dermatitis in

a person who previously had no such skin conditions is often a sign of symptomatic immunologic dysfunction.

Initial laboratory work-up should include complete blood count (CBC), hepatic enzyme determinations, serologic tests for syphilis and hepatitis B (surface antigen and antibodies), and sedimentation rate. Some physicians choose to perform serologic tests for cytomegalovirus, toxoplasmosis, and cryptococcal antigen as baselines for subsequent serologies. CD-4 (T-4) lymphocyte enumeration and percentage should be performed initially. Beta-2 microglobulin, if available, also should be performed. The T-4:T-8 ratio at one time was thought to be important, but now the absolute CD-4 count and percentage of CD-4 cells are followed instead.<sup>6,7</sup> A skin test for tuberculosis is necessary, although the physician must realize that falsely negative skin tests occur with HIV-infected patients with a substantial frequency. Other skin tests for anergy such as mumps, trichophyton, candida, or a multipuncture battery (CMI multitest) may be performed, although the CD-4 count is probably a more reliable indicator of T-cell function.<sup>7</sup>

## Initial Management

Vaccination against treatable diseases remains an important tool in the management of HIV illness. Ideally this should be done at the initial patient-physician visit. New studies indicate that concurrent acute illnesses, such as viral and bacterial infections, may stimulate the production of tumor necrosis factor (TNF) which in turn may induce additional replication of HIV. Vaccination itself may temporarily induce production of TNF, but it is short lived and of a substantially smaller magnitude than that induced by the actual illness. Vaccination guidelines have been previously published and will not be repeated here.<sup>1</sup>

The initial visit is a unique opportunity for the physician to begin counseling, since the physician may have the patient's undivided attention. However, if this first visit is used to inform the patient initially of his or her positive HIV test, the patient will often be in a state of panic or confusion, and much of what is said by the physician may be forgotten or misinterpreted. It is, therefore, very important that the physician continue to counsel at subsequent patient visits. Included in this counseling should be the explanation of the illness to the patient, the need for identifying other contacts, and the need for taking preventive measures to avoid transmitting the infection to



others. Detailed information on this is available elsewhere.<sup>8</sup> A good general reference for both patients and physicians which is updated frequently, entitled "AIDS: A Guide for Survival," can be obtained from the Harris County Medical Society, Houston, Texas.

### Assessment of Stage of Illness

The assessment of the stage of the illness is based on history of symptoms, physical examination, and the laboratory tests, particularly those which assess immunologic function. Those persons who have prolonged fever, night sweats, cutaneous findings or those with otherwise unexplained leukopenia, thrombocytopenia, or anemia are already considered to be symptomatic of their HIV infection, and are candidates for antiviral therapy. Those persons with depressed CD-4 lymphocyte counts and/or elevated beta-2 microglobulin also should be considered for antiviral therapy, despite the absence of symptoms. Other concurrent illnesses, such as syphilis, gonorrhea, etc, should be treated.

### Treatment of HIV Infection

Zidovudine, formerly called azidothymidine and also known as Retrovir or AZT, is the only drug currently approved by the Food and Drug Administration (FDA) for specific therapy of HIV infection. Initial indications for the usage of this drug were the presence of full-blown AIDS or a CD-4 cell count of less than 200/cu mm. Recent studies have shown that survival is prolonged if this drug is started earlier in the course of the infection.<sup>9</sup> Objectives of therapy are: prolongation of life, improvement of quality of life, reduction of opportunistic infections, and reduction of overall health care costs. All these are achieved by the drug's action of slowing the replication of the virus. This drug does not cure HIV infection, and the disease still remains ultimately fatal.

Current indications for institution of treatment with this drug are not completely defined but may include the following:

1. Persons with AIDS as defined by the Centers for Disease Control (CDC).
2. Persons with CD-4 counts consistently below 500/cu mm.
3. Persons with CD-4 counts of 20% or less of total lymphocyte count and elevated beta-2 microglobulin.
4. Any persons with symptomatic disease.

The starting dose of AZT for asymptomatic individuals with low CD-4 counts is 500 to 600 mg per day, given every four hours, possibly skipping the late

night dose. For persons with full-blown AIDS, the optimal dose is unknown. The originally recommended dose of 1200 mg per day in 6 divided doses is still recommended by some physicians, whereas the FDA has now approved the lower dose of 500 to 600 mg per day. The efficacy of this lower dose regimen for neurologic or central nervous system involvement due to HIV is unknown. The FDA recommends an initial loading dose of 1200 mg per day for 4 to 6 weeks for all patients, with subsequent reduction in dose to the lower regimen. There are no definitive data to support this loading regimen since no trials comparing loading doses versus initial maintenance dosing have been reported.

AZT is generally well tolerated, with minor side effects. Such side effects include nausea, headache, insomnia, and other central nervous system complaints. Leukopenia and anemia may occur frequently at the higher doses, but are far less common at the 500 to 600 mg doses. Complete blood counts should be performed frequently as described subsequently (see Follow-up Visits).

Some persons may experience severe myalgias, intractable headaches, or psychosis. Some may be particularly sensitive to the marrow toxic effects of AZT, and some may develop Coombs positive autoimmune hemolytic anemia. Drug fever or other allergic reactions may occur. Any of these side effects may be severe enough to force cessation of AZT therapy. When possible, a repeat challenge with the drug should be attempted after the initial side effects subside, in order to document that AZT was the cause of the side effect. Unfortunately, if AZT caused the reaction, there are no good therapeutic alternatives. Bristol Myers is currently investigating a new antiretroviral drug, ddI (Videx). This drug is available on a compassionate basis to certain persons who cannot take AZT therapy, although strict enrollment criteria are required. Information on this drug can be obtained through the company at 1-800-622-7999.

Approximately 25% of patients on 1200 mg per day of AZT develop anemia severe enough to require transfusion, but this is considerably less of a problem on the lower dose regimen. Anemia itself is not necessarily a reason to discontinue AZT therapy, although it may be a reason to reduce the dose even further. For those persons who develop transfusion-dependent anemia, recombinant erythropoietin administration may preclude the need for those transfusions. Although this indication for usage of erythropoietin has not been approved by the FDA, the manufacturer has made the drug available on open trials to certain pa-

tients who meet enrollment criteria. Information on this drug can be obtained from the manufacturer at 1-800-243-7739.

It is of general consensus that those persons with initial CD-4 counts of less than 200/cu mm are at high risk of developing *Pneumocystis carinii* pneumonia (PCP), and they should be placed on PCP prophylaxis in addition to their specific antiviral therapy.<sup>10</sup> Those persons not allergic to sulfonamides should take trimethoprim/sulfa daily as the first choice for prophylaxis. The optimal dosage has yet to be established, but one double-strength tablet per day is probably effective. Those who cannot take this medication because of either allergy or intolerance, or those who have failed trimethoprim/sulfa prophylaxis should be considered for prophylaxis with inhaled pentamidine. Some physicians prefer to use pentamidine as initial prophylaxis; however, this drug is much more expensive than trimethoprim/sulfa and has a 20% failure rate.<sup>11</sup> The dose of pentamidine is 300 mg administered through a small particle nebulizer (Respigard II) every four weeks. Dapsone is another alternative for prophylaxis at a dose of 100 mg daily. Its efficacy has not been compared directly to either trimethoprim/sulfa or pentamidine, but it appears to be effective.<sup>11</sup> It is inexpensive and is well tolerated, even in some individuals who are allergic to or intolerant of trimethoprim/sulfa. Lastly, concurrent administration of calcium leucovorin has been recommended by some for the prevention of marrow toxic effects of the folate inhibition caused by trimethoprim/sulfa; however, this drug is very expensive and has not been of enough substantially proven benefit to warrant its routine use.

### Follow-up Visits

Routine follow-up visits to the physician are mandatory for the successful therapy of all HIV-infected patients. The frequency of visits should be determined by the severity of the illness. These visits serve to maintain contact between patient and physician, which is an important aspect of care since the HIV-infected patient may often feel isolated and alone. These visits also allow the physician to assess the clinical status of the patient on a regular basis in order to recognize signs and symptoms of progressive disease, and to monitor for toxicity of therapy.

For those patients who are asymptomatic and are not on specific antiviral therapy, a physical examination and laboratory assessment should be performed every three or four months. CD-4 lymphocyte counts

**Table 1. Suggested Guidelines for the Evaluation of Fever in the HIV-Infected Patient**

For a new fever persisting more than 2 weeks:

1. Blood cultures: routine, AFB, and fungal (AFB cultures are not usually done on blood by most laboratories, but these cultures may be the only way to diagnose disseminated *Mycobacterium avium-intracellulare* infection).
2. Serum cryptococcal antigen.
3. CBC. If new onset leukopenia or thrombocytopenia identified, then proceed with bone marrow biopsy and culture.
4. Liver biopsy for histology, AFB, fungal and viral cultures if hepatic enzymes are abnormal.

should be performed three or four times a year to help the physician in the decision of when to start AZT therapy. For those patients on AZT therapy who are tolerating the drug well, complete examinations every 6 to 8 weeks is acceptable as long as no other concurrent problems exist. For those who are on 1000 mg or more per day of AZT, a complete blood count should be performed every two weeks. If hematologic toxicity occurs, dosage adjustments can be made according to the package insert. For those patients who are on 500 to 600 mg per day, a CBC every 4 to 6 weeks is reasonable. CD-4 counts should be done every 3 to 4 months for those who are already on AZT therapy so that PCP prophylaxis can be instituted when the absolute counts drop below 200/cu mm.

The usual course of those started on AZT therapy is for the CD-4 count to rise slightly over the first 2 to 3 months of therapy, but subsequently there is a steady and progressive fall in CD-4 counts, despite continued therapy. This fall in CD-4 count is not necessarily a reason to discontinue therapy, since it represents the natural course of HIV disease. Despite very low CD-4 counts (less than 50), continued AZT therapy is still thought to be of benefit.

Routine visits allow the physician to screen the patient for concurrent or intercurrent illnesses that may have developed. Although the patient should have been taught to be aware of symptoms of progressive illness or opportunistic infections, the physician may be able to detect subtle signs of which the patient is unaware. Likewise, the physician should use each routine visit to continue to counsel the patient on his or her disease. The discovery of other sexually transmitted diseases by the physician at follow-up visits may signify that the patient is continuing to practice reckless or risky activity, and this should signal the need for further counseling.

Certain signs or symptoms may herald or signify the development of severe opportunistic infections. It



**Table 2. Suggested Guidelines for the Evaluation of Headache in the HIV-Infected Patient**

- For headache persisting more than 2 weeks:  
OR  
New headache with fever  
OR  
Headache with memory loss, confusion, or motor dysfunction:
1. Lumbar puncture:
    - routine studies (cell count, total protein, glucose, VDRL, gram stain, bacterial cultures)
    - cryptococcal antigen and India ink prep
    - AFB, fungal, and viral cultures
    - HIV csf/serum antibody ratio
  2. Serum cryptococcal antigen.
  3. Toxoplasma serology (may be falsely negative).
  4. CT brain scan or MRI (particularly if seizures or focal, progressive, or unexplained findings present).

is beyond the scope of this discussion to detail all the opportunistic infections or conditions that may develop in HIV-infected patients. However, there are some groups of signs or symptoms which should wave a red flag to the physician and prompt further evaluation of the patient. Such groups include:

1. New fever persisting for more than 2 weeks. See Table 1 for guidelines for evaluation.
2. Headache persisting for more than 2 weeks or new headache with fever, or headache with memory loss, confusion, or motor dysfunction. See Table 2 for guidelines for evaluation.
3. Diarrhea persisting for more than one month, or acute diarrhea with fever, or blood in stools. See Table 3 for guidelines for evaluation.
4. Dysphagia or odynophagia persisting for 5 days or dysphagia or odynophagia associated with fever. See Table 4 for guidelines for evaluation.
5. New cough persisting for more than 2 weeks or cough associated with dyspnea. See Table 5 for guidelines for evaluation.
6. Purple or red macules on skin or mucous membranes which do not resolve in two weeks. Skin biopsy or referral to dermatologist is preferred management.

The psychologic and social needs of the patient cannot be overemphasized. Many patients experience a severe depression which occurs after the diagnosis of HIV infection is made. This depression is usually temporary and lasts between 3 weeks and 3 months. The patient should be encouraged that such depression is common and usually self limited. Major depression requiring specific intervention, such as pharmacologic treatment with antidepressants or

**Table 3. Suggested Guidelines for the Evaluation of Diarrhea in the HIV-Infected Patient**

- For diarrhea persisting one month  
OR  
Acute diarrhea with fever  
OR  
Blood in stools:
1. Rectal culture for GC.
  2. Stool exam:
    - cultures for campylobacter, salmonella, shigella, and yeast
    - AFB smear for cryptosporidia and mycobacteria, and culture for mycobacteria
    - standard ova and parasite preparations and immunofluorescent smear for cryptosporidia if available
  3. If negative results in 1 and 2, colonoscopy with biopsy of ANY lesion for histology and culture for AFB, fungus, and virus (since CMV and herpes simplex may cause atypical lesions).
  4. If negative results above, then small bowel biopsy looking for giardia or *Mycobacterium avium-intracellulare*.

**Table 4. Suggested Guidelines for the Evaluation of Dysphagia in the HIV-Infected Patient**

- For dysphagia or odynophagia persisting 5 days  
OR  
Dysphagia or odynophagia associated with fever:
- esophagogastroduodenoscopy for biopsy of any lesions. Biopsy specimens should be sent for routine histology and for culture for fungus or virus. Herpes simplex, CMV, and candida can cause esophagitis with grossly indistinguishable lesions. The diagnosis of candida is made on histology, not culture.

**Table 5. Suggested Guidelines for the Evaluation of Cough or Dyspnea in the HIV-Infected Patient**

- For new cough persisting more than 2 weeks  
OR  
Cough with dyspnea or fever:
1. Sputum induced with 3% saline:
    - bacterial culture, AFB, and fungal cultures and smears
    - viral cultures
    - Giemsa, GMS, immunofluorescent or toluidine O blue stain for pneumocystis (check with local lab for details)
  2. Chest x-ray:
    - if abnormal, and smears from sputum are nondiagnostic, then fiberoptic bronchoscopy (FOB) with bronchoalveolar lavage (BAL)
    - if normal, do ABGs and if abnormal go to FOB with BAL
  3. If work-up in No. 1 is nondiagnostic or if patient is unstable or with severe dyspnea, consider FOB with BAL as soon as possible.

psychological counseling, may occur at any point in the illness, and the physician should be observant for this. Psychiatric or psychological consultation should be encouraged if any significant behavioral problem is identified in which the primary physician is uncomfortable with his or her own management skills. Financial need, either immediate or anticipated, may appear overwhelming to the patient who is facing a future of continued medical care. Early referral should be made to social service agencies so that the patient may prepare for future needs. Many persons may benefit from support groups that can offer social, financial, and emotional support. Such support groups include:

AIDS Support Program, Inc.  
405-525-6277

Shanti, Tulsa  
918-749-7898

Muskogee Mayor's Task Force on AIDS  
Contact person: Linda Edmondson  
918-684-2448

Ponca City AIDS Support Group  
504-767-1869

Norman Support Group  
Contact person: Irma Huston  
405-360-5100, Ext. 2805

Intertribal AIDS Task Force  
Contact person: Teresa Lopez  
405-357-3449

Lawton, Oklahoma

AIDS Services Network, Tulsa  
Contact person: Janice Nicklas  
918-585-5551

Support Group for PWAs in Rural Oklahoma  
Contact person: Marilee Behrens, Bartlesville  
800-722-0732

Women's Issues on AIDS  
Contact person: Joan Foreman  
405-424-7711

Community AIDS Network, Stillwater  
Contact person: Mary Ruth Anderson  
405-624-2533

Garfield County AIDS Task Force  
Contact person: Denny Krick  
405-233-0650

Shawnee AIDS Support Group  
Contact person: Barbara Porter  
405-275-7100

PWA Life Coalition, Wichita Falls, Texas  
800-252-5010

## Summary

There have been 535 cases of AIDS reported in Oklahoma since 1983, and there have been over 600 cases of non-AIDS HIV infections reported since June 1988. Although the number of new cases of AIDS appears to be leveling off, the number of persons with HIV-related illnesses in Oklahoma over the next two years will likely exceed one thousand. Primary care physicians will have to assume the burden of care for many of these persons. Because of the multiple organ systems involved by this disease and because of the different medical specialty boundaries crossed by this disease, there are few physicians who will not come into contact with HIV-related illness. This paper discusses the initial screening, counseling, and subsequent management of HIV-infected patients as guidelines for the office management of the HIV-infected patient. □

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# High Dose Rate Sources in Remote Afterloading Brachytherapy: Implications for Intracavitary and Interstitial Treatment of Carcinoma

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Remote afterloading brachytherapy provides effective cancer treatment with zero personnel radiation exposure compared to conventional low dose rate systems requiring inpatient use of iridium, radium, or cesium sources. Clinical use of high dose rate brachytherapy is broadened to encompass curative treatment of cervical, endometrial, endobronchial, head and neck, esophageal, rectal, and prostatic carcinomas as well as palliation of intra-abdominal metastasis intraoperatively. Complications encountered with high dose rate sources will be compared to those of low dose rate systems commonly used in conjunction with external beam irradiation. Radiobiological effectiveness and economic benefits will be addressed to provide support for use of remote afterloading using high dose rate brachytherapy in palliative and curative treatment of selected carcinoma.

## Methods and Materials

Standards and patterns of care in the treatment of cancer have evolved into highly technical procedures. New modalities such as magnetic resonance imaging (MRI) and advances in radiography, ultrasonography, nuclear medicine, and computer tomography (CT) created the ability to define a solid tumor as a precise step in cancer management. Surgery to excise or debulk a tumor and chemotherapy to effect systemic control of cancer have made remarkable strides in the last twenty years. Radiation therapy, likewise, has made tremendous advances in terms of new high energy linear accelerators, sophisticated dosimetry computer systems, precision simulators, and ad-

vances in brachytherapy. The increased knowledge in radiobiology and the combination of modern radiation therapy with surgery and chemotherapy has led to dramatic improvements in the cure of cancer, the palliation of locally advanced and metastatic disease, and reduction of overall complications. Radiation oncology as a specialty continues to develop more versatile methods to deliver tumoricidal doses of radiation to internal and external sites, while striving to allow normal nearby tissues to continue their own specialized functions without harm from the adjacent treatments.

Teletherapy, or external beam irradiation, describes the treatment of cancer by photons emitted either from a source such as cobalt or from a target hit by an accelerated high energy electron beam. The radiations are directed into the patient from some finite distance. Because of the volume of tissue treated, the limits of external beam irradiation are met when the nearby normal tissues reach their characteristic tolerances. Brachytherapy, the introduction of the radiation source directly into the area of malignancy, describes the delivery of tumoricidal doses of radiations at very short distances from the source. The source may be placed through a catheter inside a bronchus, placed in an obstructed biliary system, or in applicators for brain, esophageal, rectal, or gynecological cancers.

When brachytherapy, with its short range of effective irradiation, is used in conjunction with external beam irradiation, the dose delivered to the solid tumor can be maximized. Predictable, yet minimal, effects on neighboring tissues occur. The final dosime-

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try depends upon the location treated and the specific activity of the source.<sup>1</sup>

Safety concerns in conventional low dose rate brachytherapy require specific precautions to limit exposure to the patient, nursing staff, surgeons, anesthesiologists, physicists, and radiation oncologists.

The introduction in the past decade of high dose rate sources for remote afterloading has advanced the clinical feasibility of brachytherapy. Actual treatment times vary from five minutes to one hour. Out-patient treatments are standard in most cases. Comparable treatment by conventional low dose brachytherapy may take from two to eight days, risking acute complications of prolonged installation of applicators in precarious sites, thereby restricting the range of clinically accessible cancers. In high dose rate treatments, iridium or cobalt sources can be geometrically arranged to deliver 40 to 600 rads (cGy) per minute to a volume targeted by diagnostic aids.<sup>2</sup> Fractions ranging from 300 to 5000 rads (cGy) can be given in a single application.

A radiation therapy facility equipped for high dose rate brachytherapy has the physics staff and equipment to advise the radiation oncologists of acceptable treatment plans. Computer technology accommodates unusual geometry in an expedient manner.<sup>3</sup> Equipment to perform remote afterloading includes the proper high intensity sources, a wide selection of applicators to be placed in the patient,

the ability to do fluoroscopic confirmation, and a properly shielded treatment room. The patient is observed via remote monitors while the treatment is taking place.

Treating deep-seated organs in previously inaccessible sites with remote afterloading devices is made more feasible with high dose rate sources.<sup>4</sup> Applicators are remotely loaded with strategically placed sources in the urinary bladder, prostate, vagina, rectum, anus, base of the tongue, and even the breast.<sup>4-10</sup> After the irradiation is completed according to a treatment plan devised by the radiation oncologist, the sources are retracted with no exposure to personnel. Either as a boost or as definitive therapy, effective irradiation is accomplished in selected cancer sites.<sup>4</sup>

Malignant biliary obstruction is palliated by high dose rate afterloading of iridium through a percutaneous catheter after localization by transhepatic cholangiography.<sup>11</sup> Hepatic metastasis has been treated with ultrasound guidance of a remote afterloading applicator placed in the lesion. Up to 5000 rads (cGy) in one fraction may be given with minimal toxicity.<sup>12</sup>

Pediatric malignancies in easily accessible sites are sometimes irradiated in combination with other therapy to minimize late effects on adjacent undeveloped tissues. Rhabdomyosarcomas and yolk sac tumors of the pelvis, and head and neck regions have been treated successfully with postoperative interstitial or intracavitary brachytherapy after an established chemotherapy regimen reduces the original tumor volume.<sup>13</sup> In a three-year follow-up study, late complications ascribed to radiation therapy were seen in only 11% of the children. Protocols are being developed to better incorporate local irradiation directed only to involved sites in pediatric malignancies. This should reduce the late effects such as muscular or vascular fibrosis, delay of bony growth, or induction of a second cancer, risks which could devastate a child with a cured cancer.<sup>14,15</sup>

Intraoperative afterloading brachytherapy for treatment of glioblastoma multiforme, a primary brain tumor with a dismal prognosis, has been used for initial management of unresectable tumor as well as for retreatment of patients with recurrence after external beam irradiation.<sup>16</sup> In a Phase I toxicity study, high activity cobalt was placed by probe into the tumor volume, delivering 2000 rads (20 Gy) in 15 to 30 minutes as an intraoperative session.<sup>17</sup> Peri- and postoperative complications after the probe was removed were mild; 11% of the patients developed



**Figure 1.** Fiberoptic bronchoscopy under local anesthetic is being used to explore the tracheobronchial tree. Note that the patient is awake and is, in fact, using the teaching head on the bronchoscope to observe the procedure being performed upon him.





**Figure 2.** Threading the tiny endobronchial treatment catheter down the tracheobronchial tree under direct observation.

nausea with vomiting, but no cases of hemorrhage, meningitis, or irreversible neurological deficits were observed. All patients were discharged within 2 to 6 days. In curative cases, whole brain irradiation of 4000 rads (40 Gy) followed by an external boost of 2000 rads (20 Gy) was then followed by an interstitial boost of 2000 rads (20 Gy) providing 8000 rads (80 Gy) to the tumor.<sup>17</sup> Conventional therapy is usually external beam irradiation stopping at 5000 to 6000 rads (50-60 Gy) because of surrounding normal brain tolerance being reached.<sup>18</sup>

Currently the most common usage of remote afterloading brachytherapy is for endobronchial, esophageal, and gynecological malignancies. In lung carcinoma, a high intensity intraluminal source is used in a small catheter strategically placed via bronchoscopy into the area of the tumor. This treatment, when combined with laser therapy, can offer palliation of obstructive symptoms. It can also sometimes palliate significant hemoptysis.<sup>19</sup> By boosting the radiation dose to the tumor volume, intraluminal brachytherapy can make a stronger attempt at cure. The treatment is given following an outpatient bronchoscopy. Reports of up to 80% of patients receiving long-term palliation are available.<sup>20</sup> In recurrent endobronchial cancer, following full-course external irradiation, the patients have few treatment options. These cases may be successfully treated with single or multiple intraluminal applications of high dose rate treatments with good palliative results. Larger patient accrual with prospective testing is now being studied to assess therapeutic values and appropriate fractionation schemas.

Another readily accessible site for afterloading brachytherapy is in midthoracic and distal esophageal cancer. External beam irradiation is augmented with multiple fractions of high dose rate applications through a catheter placed endoscopically. In a retrospective study, local control was achieved in 60% of Stage I and II cancer, with a two-year survival rate of 28%. External beam was combined with intraluminal therapy to deliver 6000 to 7800 rads (60-78 Gy). This was compared to external beam alone, 5000 rads (50 Gy), where a 20% local control was achieved with a two-year survival rate of only 5%.<sup>21</sup> Complications of stricture, aorto- and bronchoesophageal fistulas were encountered,<sup>22</sup> but these also occur with conventional therapy.<sup>23</sup> Prospective studies are being conducted to assess toxicity and acceptability of late complications. Development of criteria for patient selection is very important so that the proper treatment modality is offered and risks for distant metastases are identified.<sup>24</sup>

Chemotherapy in combination with external beam irradiation for esophageal cancer is currently undergoing clinical trials. Pre- and postoperative irradiation with intracavitary boost may indeed approach disease-free survival rates seen in other similar cell types, ie, uterine cervical cancer, but again, proper studies are necessary.

Intracavitary treatment for the appropriately staged uterine and cervical cancer combined with external beam as well as surgery has long been established as standard therapy.<sup>1,25</sup> Cervical carcinoma may be the most widely studied disease for comparing high and low dose rate remote afterloading brachytherapy systems.<sup>26,27</sup> Adjusting the fractionation schedules and source arrangements has aided in assessing complications seen in exposing nearby structures such as the rectum, bladder, small intestine, and colon.<sup>9,16</sup> Varied reports of acceptable complications, including those requiring surgical correction, ascribed more complications in an earlier random study with high dose rate sources compared with low dose rate sources.<sup>27</sup> When improvement in technique and assessment of dose fractions occurred, the complication rate within one center improved.<sup>28</sup> Temporarily moving critical structures away during the short treatment time also limits doses to acceptable tolerance.<sup>9,10</sup> Using high dose rate systems can reduce treatment time, assure no radiation exposure to staff, and offer comparable results, stage for stage, compared with conventional low dose rate systems using radium or cesium.<sup>26-32</sup> When the dose for squamous cell carcinoma, most common of the cervical cancers,



**Figure 3.** The patient sitting in the treatment position in front of the treatment machine. Note that two catheters are being used in this particular treatment situation. The patient is alert and comfortable, with the entire treatment lasting only a few minutes.

approaches 10,000 rads to the cervix, greater than 90% cure rate is achieved.<sup>33</sup> The ability to deliver these doses conveniently with acceptable risks to surrounding tissues is an advantage of brachytherapy using high dose rate sources.

In a recent symposium on high dose rate remote afterloading brachytherapy, the opening syllabus called for standardization of brachytherapy techniques and dosimetry of high dose rate systems. More protocols are being developed to study radiobiological differences in conventional low dose rate compared to higher activity sources.<sup>34</sup> The standard for brachytherapy continues to be the radium source (low dose rate); however, the results being achieved with high dose rate remote afterloading equipment is extremely encouraging.

The difference in cost between the brachytherapy techniques depends upon the need for hospitalization, the number of treatments given, and the amount of expertise needed at each procedure, ie, pulmonologist, surgeon, or gastroenterologist.<sup>35,36</sup> All factors considered, the costs are comparable between methods. A remote afterloader with capability in both intracavitary and interstitial is more versatile. Sources and applicators are custom designed depending on the procedure.

## Conclusion

In summary, remote afterloading of sources for high dose rate irradiation is being done in previously inaccessible sites. Results comparable to conventional low dose rate treatments are now being achieved in cervical carcinoma. Improved results are being reported in esophageal cancer. Long-term palliation is now being achieved in endobronchial malignancies

with some potential improvement in cure rate. Palliation for intra-abdominal metastases is possible. Improvement in the treatment for cure in head and neck, breast, bladder, brain, and colorectal malignancies may be achievable when combined with external beam irradiation. We are currently working to identify the radiobiological differences when compared to conventional low dose rate interstitial and intracavitary techniques to treat cancer. With these results we will be able to accurately judge the future of high dose rate brachytherapy in terms of improved cure rate, significant palliation, and reduction in long-term complications.

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## Coming next month

Scheduled for publication in December are a review of the management of diabetic ketoacidosis, an overview of cancer of the prostate, and an examination of career choices made by graduates of the University of Oklahoma College of Medicine in the eighties.

# Allied Health Education in Oklahoma

Lee Holder, PhD; Sharon Nelson, MPH; Barbara Curcio, MEd

This article is the first of several dealing with medical education and recruitment in Oklahoma and generated at the request of the OSMA-OUHSC Liaison Committee. The articles were sought out and submitted with the assistance of Edward N. Brandt, Jr., MD, PhD, executive dean at the University of Oklahoma College of Medicine.

**T**he purpose of this article is to provide information on allied health education in Oklahoma, which will assist physicians in counseling prospective students about health career options. The emphasis will be on programs at the University of Oklahoma Health Sciences Center (OUHSC).

## Background

Allied health is a term that has been used since 1966 to identify more than 100 health occupations and professions. One way of describing allied health is to say that it encompasses the bulk of those people working in health care disciplines who are not physicians, dentists, nurses, pharmacists, or public health professionals. Allied health includes such fields as the clinical laboratory sciences, communication disorders, occupational therapy, physical therapy, radiologic technologies, dietetics and nutrition, respiratory therapy, medical record administration, and many others.

For every physician there are 12 other people in-

involved in health care services in the United States. Allied health personnel constitute approximately 60% of the total health care workforce.

## Why Allied Health?

Why should an individual with an interest in health careers choose an allied health profession? Several reasons come to mind: First, jobs are plentiful in any part of the nation, and demands are growing as the health care system expands; second, a person has options of certificate, associate degree, baccalaureate, or graduate programs, depending on his or her resources, capabilities, and motivation. One can have a satisfying career without spending half a lifetime in educational preparation. Of course the responsibilities, remuneration, and potential job satisfaction increase with the level of preparation required. Third, salaries and potential for earnings are improving over time.

## Physicians as Recruiters

Needs and demands for allied health personnel in Oklahoma, as in the nation, are increasing faster than we can supply qualified practitioners. Physicians recognize the importance of allied health professionals in the delivery of quality patient care. Physicians, being the role models in health care, can and should play a significant role in recruiting potential students from their communities. They can explain the options available and the prerequisites necessary to enter any of the disciplines in the wide range of health care opportunities.

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In this article we will summarize the allied health options available, the employment outlook, and the programs available at the University of Oklahoma Health Sciences Center in Oklahoma City.

Alternative Choices

Opportunities in allied health vary from fields that offer little patient contact, as in the laboratory sciences, to much patient contact over a limited period as in the diagnostic specialties, to much patient contact over a long period of time as in the therapeutic specialties. Personal characteristics of the potential student will influence the career decision. For example:

- a. Individuals interested in high technology and instrumentation with preference for minimal patient contact and the opportunity to work independently much of the time might opt for a laboratory science such as cytotechnology or medical technology.
- b. Individuals interested in high technology and instrumentation, body structure and function, and patient contact in a variety of settings with high interaction with a health care team might choose a diagnostic specialty (such as radiography or sonography).
- c. Individuals with high interest in structure and function of the body, a desire for long-term patient contact in a variety of settings, and a high level of interaction with health care team members, might prefer therapeutic/rehabilitation professions such as physical therapy, radiation therapy, occupational therapy, or speech-language pathology.
- d. Individuals with keen interest in influencing health behavior and education might choose fields such as clinical dietetics, education of the deaf, and others with specific opportunities to influence the life-style and educational potential of the client or patient.

Personal characteristics of the potential allied health professional are not different from other health professionals. We identify some overall characteristics as:

- Intellectual curiosity and respect for human structure and function
- Potential for equanimity and poise
- A democratic character that accepts diversity and individuality of people without being judgmental
- A desire to learn new things and to continue lifelong learning

- Values affirming human potential to include concern and compassion for others

Needs and Demands

Needs and demands for the allied health professionals are increasing dramatically as their roles and value in health care delivery are recognized. A 1989 Institute of Medicine report, "Allied Health Services — Avoiding Crises," projected increased demands for additional personnel between 1986 and 2000 as follows\*:

Field	Employment	Projection	#New Jobs	% Increase
Clinical Laboratory Sciences	239,400	296,300	+ 57,000	+ 24%
Dietitian	40,200	53,800	+ 13,600	+ 63%
Occupational Therapy	29,400	44,600	+ 15,200	+ 52%
Physical Therapy	61,200	114,700	+ 53,500	+ 87%
Radiologic Technology	115,400	190,100	+ 74,700	+ 65%
Speech-Language Pathology	45,100	60,600	+ 15,500	+ 34%

Reasons for these increasing demands parallel those in medicine — increased technology and sophistication in health care delivery; consumers expecting more health care services; and demographic changes in our population requiring more services for an older age group, particularly in long-term care.

We have only speculative data on unfilled needs for employment of allied health personnel nationally and within Oklahoma. Although the database is somewhat limited, we do know, based on feedback we constantly receive from throughout Oklahoma, that there are shortages in numbers and geographic maldistribution of personnel. Reasons for shortages and maldistribution are similar to those for physicians — insufficient resources to prepare sufficient numbers of graduates, and socioeconomic reasons for migrating to the cities having major health care facilities. In some cases, lack of appropriate monetary rewards, along with professional isolation, contributes to this migration. Feedback from facilities and patients indicates that these shortages are detrimental to quality health care. For example, the Departments of Mental Health and Human Services cannot keep acceptable staffing patterns for occupational therapists, physical therapists, and speech-language pathologists, and special education programs have mandates to provide therapy services but cannot attract people to provide the services throughout the state. The list

\*Institute of Medicine, Allied Health Services — Avoiding Crises, National Science Foundation, National Academy Press, Washington, DC, 1989.

Table 1. Prerequisite Courses to Programs in the College of Allied Health

	CLD	CYTO	MEDT	COMM	OCTH	PHTH	RLTN
ENG 1113 English Composition	x	x	x	x	x	x	x
ENG 1213 English Composition	x	x	x	x	x	x	x
United States History (3 hrs)	x	x	x	x	x	x	x
Government of the United States (3 hrs)	x	x	x	x	x	x	x
Foreign Language (10 hrs or in High School)	#	#	#	#	#	#	#
Understanding of Artistic Forms (3 hrs)	#	#	#	#	#	#	x
Western Civilization/ Culture (3 hrs)	#	#	#	#	#	#	#
Non-Western Cultures (3 hrs)	#	#	#	#	#	#	#
ANTH 1113 General Anthropology	(a)						
CHEM 1315 General Chemistry	x	x	x			x	x
CHEM 1415 General Chemistry	x	x	x				
CHEM 3013 Organic Chemistry	x		x				
CHEM 3012 Organic Chemistry Lab.			x				
CHEM 3653 Biochemistry			x				
CHEM 3652 Biochemistry Lab.			x				
CLC 2412 Medical Vocabulary					x		
CLD 1823 Elementary Nutrition	x						
CLD 3233 Principles of Food Preparation	x						
COMM 1113 Principles of Communication						x	
ECON 2113 Principles of Economics	x						
MATH 1523 Elementary Functions	x	x	x	(a)			x
MBIO 3932 Instrumentation			x				
MBIO 3942 Instrumentation Lab			x				
MBIO 4833 Immunology			x				
MBIO 4845 Pathogenic Microbiology			x				
MBIO 2815 Microbiology (with lab)	x	x	x				
PHYS 1045 Physical Science for Teachers				(a)			
PHYS 1114 Gen. Physics for Non-Science Majors					x		x
PHYS 2414 General Physics for Life Science			x			x	
PHYS 2424 General Physics for Life Science						x	
PSY 1113 Elements of Psychology	x	x	x	x	x	x	x
PSY 2003 Understanding Statistics				(a)	x	x	
PSY 1193 Introduction to Personality					x		
PSY 1603 Intro. to Life Span Development					x		
SOC 1113 Introduction to Sociology	(a)	x			x	x	x
ZOO 1114 Introductory Zoology	x	x	x	(a)	x	x	x
ZOO 1121 Introductory Zoology Lab.	x	x	x		x	x	x
ZOO 2124 Human Physiology	x	x	x		x	x	x
ZOO 2255 Human Anatomy					x		

(a) = or an acceptable substitute

# = effective for those who enter the College of Allied Health in Fall 1992

CLD = Clinical Dietetics, CYTO = Cytotechnology, MEDT = Medical Technology, COMM = Communication Disorders, OCTH = Occupational Therapy, PHTH = Physical Therapy, RLTN = Radiologic Technology

could go on and on, but suffice it to say that we have major problems of supply and demand in allied health services in Oklahoma.

### Programs in Oklahoma

Many people think that a health career is synonymous with physician, nurse, or dentist and are not aware of alternative career choices in the health care fields. We believe that people contemplating a health career should know about the wide variety of opportunities available in many health career fields so

they can make a choice suited to their capabilities, resources, and motivation. There is a wide range of programs at different levels of preparation, from post high school through post doctorate. For example, vocational technical schools offer beginning level programs such as medical laboratory technician (certificate), medical assisting, and dental assisting. These generally are one-year programs that do not offer academic credit. The next level on the ladder is community and junior colleges, offering two-year programs in disciplines such as medical laboratory technician (associate degree), physical therapist assis-



tant, occupational therapy assistant, dental hygienist, etc.

The College of Allied Health at the University of Oklahoma Health Sciences Center in Oklahoma City offers baccalaureate and graduate degree programs in the following areas:

#### **Bachelor of Science programs**

- Clinical laboratory sciences (options in medical technology and cytotechnology)
- Clinical dietetics
- Communication disorders
- Occupational therapy
- Physical therapy
- Radiologic technology (options in radiography, radiation therapy technology, nuclear medicine technology, and ultrasound)

#### **Master of Science programs**

- Audiology
- Speech-language pathology
- Education of the deaf
- Clinical dietetics
- Physical therapy

#### **Doctor of Philosophy programs**

- Audiology
- Speech-language pathology

### **Admission Requirements**

Before entering any health care profession, prospective students should spend time in a variety of health care settings to get a "feel" for the atmosphere and demands of caring for those with physical or emotional problems. Some academic programs will require, while others will highly recommend, that applicants spend time shadowing a professional during a typical work day or work week. Not only does this experience give students better understanding of the duties of the profession, but it also helps students learn about themselves and whether or not they have the knowledge, skills and attitudes necessary to pursue a given profession.

Course requirements for most programs at the baccalaureate level will include those general education courses required of any student seeking a degree, ie, English composition, US history and government, psychology, sociology, mathematics, zoology, humanities, and foreign language. In addition, allied health programs will require some additional studies in physics, chemistry, psychology, statistics, microbiology, or economics.

A chart listing specific prerequisites to programs in the College of Allied Health at the University of

Oklahoma Health Sciences Center is included as Table 1.

When considering an applicant for admission to an academic health care program, departments consider several attributes. The most basic qualifier is a student's overall grade point average (GPA). All programs require a minimum overall GPA of 2.50 on a 4.00 scale; the average GPA of students who are admitted is generally in the 2.8–3.5 range. Some programs require a minimum GPA of 2.5 for all science courses taken as prerequisites.

Other criteria that may be evaluated include the applicant's ability to read and comprehend technical information, and to write, solve problems, and relate in a professional and humane manner.

Of utmost importance is the selection of students with the potential to carry on both the affirming human values of the allied health professions and the sophisticated skills and techniques of the various fields. Translation of high technology and sophisticated practice into a humane and beneficial experience for the client or patient is the highest imperative for allied health professionals now and in the future.

### **Summary**

Needs and demands for allied health personnel are increasing dramatically as their value to the health care team is increasingly recognized. Opportunities are abundant at a variety of educational levels — from post-high school to post-doctoral preparation — for people to enter the health care service system via one of many allied health disciplines.

There are a variety of allied health programs in schools and colleges in Oklahoma. We at the University of Oklahoma College of Allied Health are pleased to serve as a central clearinghouse for information and referral on allied health programs. For additional information, contact us at: College of Allied Health, University of Oklahoma Health Sciences Center, 801 Northeast 13th Street, CHB-128, Oklahoma City, OK 73190. We may be reached by telephone at (405) 271-2288 (Dean's Office) or (405) 271-6588 (Student Affairs). □

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# Leaders in Medicine: Joe L. Duer, MD

By Richard Green  
Photographs by Jim Thomas

Begun in 1981, the Leaders in Medicine series recognizes some of Oklahoma's most outstanding physicians and the contributions they have made to their communities and profession. This is the sixteenth article in the series.



**T**urn at the deer crossing sign, said the directions. Deer in Woodward? Perhaps the doctor had his own private stock?

But a couple of miles west of

US 270 as it enters Woodward is a nice-sized forest of hardwoods along the creek that winds through Joe and Beryl Duer's 80 acres.

From the oblique turn at the deer crossing, the road drops down a steep embankment and leads almost immediately into this small forest. The winding road narrows as the trees become even more dense near the sun-dappled creek-bed.

Climbing again, the forest soon gives way on the right to a hillside clearing partially occupied by a 3,000-square-foot split-level, wood-

frame house. After his retirement in 1969, Dr Duer and his son Wesley built that house, Wesley's family home.

The one-lane blacktop descends again into woods so dense that even at mid-morning, a driver's eyes need time to adjust to the darkness. As the road winds out of the trees, a large ranch-style house appears at the crest of the hill.

As with the first house, the land for Joe Duer's home was cut out of the surrounding forest; his lawn is expansive and well cultivated.

Sitting in their large kitchen with its elongated windows, Joe and Beryl often see wildlife emerge from the trees and walk across their front lawn. Already on this July morning, they had seen a doe and an extended family of quail.

At 85 years of age, Joe Duer doesn't have many appointments, but he says (and Beryl verifies)

that he is almost as active as he ever was. His lifelong unquenchable desire to learn is still remarkably intact. He reads several books a month. "All serious stuff, no fluff," he says.

Joe and Beryl are accomplished contract bridge players, and though their best years may be behind them, they still occasionally participate in national tournaments. A card table looks like a more or less permanent furnishing in their spacious, airy living room. The table is covered by a pressed table cloth and two decks of cards; pencils and note pads are in place.

Joe is even more successful playing the stock market. Beryl says he has made more money on the stock market since his retirement than he did throughout his 36-year practice. She also mentions that he wrote off about a half million dollars in fees during those years — from 1933 to 1969. She should know, says a longtime fam-





The Duer home, near Woodward.

ily friend, who adds that Beryl was the business brains during Doc's years in practice.

Though he never crowded any of his patients over the money they owed him, Beryl says that Doc always was and still is tight with money. Joe responds by turning up (or down) his hearing aid. Then, she adds that his frugality is perfectly understandable considering where he came from. "Dirt poor," she says. "And, I think the thing I've always admired most about Dr Duer (it's always Dr Duer or Doc) is that he's accomplished so much when he started out with nothing."

She describes a family of subsistence farmers out on the godforsaken prairie, barely eking out a living, sometimes going to bed hungry.

Joe listens but says nothing. He gazes out the kitchen window into his little forest and begins his own version of the story. He says he can recall his family's small wood-frame house like it was yesterday. Though it was more than two generations ago (the Duers have great-grandchildren), the physical distance from there to here in Woodward hasn't been far. Joe has spent three-quarters of a century living within 45 miles of that small house where he was born and raised.

Moreover, that modest homestead is where he learned how he would conduct his life. Even as a young boy, he knew he would always have to work very hard for anything worthwhile. But that basic understanding helped pave

Joe's way because it enabled him to do extraordinary things ordinarily.

\* \* \*

**L**enora is a ghost town in northwest Oklahoma, in Dewey County. Of course, the few people who live where the town used to be wouldn't approve of that designation, but when all that's left of its businesses and post office are a few decaying buildings. . . .

Lenora's demise ensued after the town lost a campaign against Taloga to become the county seat. When the contest was decided, by both fair means and foul, the civic boosters seemed to lose heart and hope. People began drifting away, and within a few years the last merchant to leave town turned off the lights.

But that was the end. Near the beginning, when the bustling little town's residents ushered in the twentieth century, among them were two newcomers from Kansas. Willis Duer and Sylvia Tarr met and were married there before journeying into Oklahoma Territory to begin homesteading near Lenora.

Willis had dropped out of school in the eighth grade and gave up a baseball career with the Kansas City Blues because he didn't see any future in it. So he married Sylvia and struck off to make his fortune in farming. Instead, he turned out to be just another Okie sod-buster.

Despite his lack of formal educa-

tion, Willis was well read, talented, and opinionated, but lacked the managerial skills and luck necessary to maximize his effort on marginal farmland. He tried growing various crops: corn, cotton, and castor beans (used for castor oil), but the yield was low and unprofitable. He did better with broomcorn, but he had little to show for his backbreaking labor.

Even as a youngster, his son Joe could see that. And when Joe got a little older, he experienced it firsthand, working behind a mule, plowing the thin, unproductive soil. He did enough to know he didn't want to spend his life "looking at the south end of a north-bound pair of mules."

This is not to say that Joe's childhood was all drudgery and deprivation. His memories are of an idyllic time, the classic picture of America's Age of Innocence before World War I.

A half century later, addressing a Weatherford PTA meeting, he recalled his childhood as a time when "neighbors were neighbors, friends were friends." Life was filled with "country singings, the pie suppers, the spelling bees, the local talent shows.

"The entertainment was homemade. Community life was strong. All magazines and books were at a premium. The old barn dances were popular. . . . Life was real then. The things that re-





In this early family portrait, Joe Duer, age 5, leans against his father's leg.

ally counted came first, by necessity. There was no distortion of values. Each had about as much as the other."

The people had an abundance of "courage, initiative, self-reliance, ambitions, hope, desires, and above all a sense of freedom and optimism," Joe says.

These sorts of things are typified in two of Joe's youthful adventures. In 1910, when Joe was 5, the family received word that his grandfather was ill and wasn't expected to live much longer. Willis dropped everything and spent most of his money on one-way train tickets to Kansas for his family.

It was Joe's first train ride, and when they arrived on a cold December day, they were met by a neighbor who drove them to Mr Duer's bedside in a Velie automobile. That night Joe and his sister bedded down under a real buffalo robe.

Even after Joe's grandfather died that March, they remained to help relatives with the wheat harvest. They returned home in a covered wagon. The trip took two weeks, and the way Joe remembers it, he and his sister walked most of the way.

In another incident, as an adolescent, Joe and his gang of kids once piled into a horse-drawn wagon for an overnight camping

and exploratory trip to some bat caves. They crawled through the labyrinth all afternoon and on the way out, Joe was waving a stick at the bats that were flying toward the cave's mouth. He accidentally dislodged a boulder that broke several bones in his feet.

He spent his weeks of convalescence reading a school's 24-volume set of *The Book of Knowledge*. Though his overall comprehension was questionable, Joe's motivation, curiosity, and exceptional memory were not. And this happened soon after he had dropped out of school after the eighth grade.

Joe had resolved, however, that he would complete high school and even college. His father, who harbored enough doubts for both of them, probably thought his son was dreaming. But Joe had been paying his own expenses since he was 12, with money earned doing part-time jobs; he had no doubts.

In part, he was following his parents' admonition and example: if you want something, work for it. But he also wanted to help the family, which wouldn't be complete until he had 10 brothers and sisters.

When he did enroll in Lenora high school three years later, at age 16, he lived in a rooming house in town on school days and worked

to pay his way. The school was too far from his parents' home for him to walk, and he had no other means of transportation.

After three years, he was allowed to test out of the final year of high school; he figured he could have tested out on the first day. His voracious reading, including one volume after another of the encyclopedia, taught him much more than he learned in high school.

As well as Joe did, however, his older sister beat him out for class valedictorian. Joe was salutatorian (though it should be noted the class had only two members.)

\* \* \*



The Duer brothers — Swede, Joe, and Wayne.



**T**he Roaring Twenties were in full swing when Joe Duer enrolled at the University of Oklahoma in 1926, but during his freshman year he hardly looked up. No time for frivolity, defined as anything other than attending class, studying, working, eating, and sleeping.

Joe majored in pre-law but was so unsophisticated that when he heard attorneys sometimes were obliged to defend people whom they thought might be guilty, he changed majors and ruled out the law as being too unprincipled. He lacked experience and money, but was long on native intelligence, determination, resourcefulness, and self-confidence.

It hadn't worried him that he was starting college with a life savings of only \$165. He'd get a job and work, as he always had. But after a couple of weeks of pounding the streets of Norman, he learned a disturbing fact: upperclassmen already had virtually all the jobs nailed down.

Finally, Joe got bed and breakfast in a ramshackle rooming house in exchange for tending the building's furnace. He also hustled for casual labor. Still, by Christmas, he was worried enough to calculate that without more income, he would have to limit himself during the second semester to 15 cents per day.

About then, he met an elderly man who gave him the chance to become an entrepreneur. For \$50 a month rent, Joe ran a hamburger joint. Though he called it a rat hole, it was located near some fraternity houses, and he made enough money to get through the second semester.

He closed the business for the summer and returned to his parent's farm to help them. After that, with his new business partner,

Bus Boatman, he moved their food business to a little shop on West Boyd. They called it the Brown Owl, and by working long and hard and making the best hamburgers in town, Joe, for the first time in his life, had a little extra money.

Though he spent most of it on replacement clothes, he also man-

however, as he had spent the year following his graduation teaching in Lenora. Extrapolating from his own lack of credentials and his meager \$80-a-month salary, he saw no future in teaching.)

Joe realized he had been spending most of his time in the medical school. He liked the science, and with his excellent powers of concentration and retention, he knew he could chew up the assignments and regurgitate the material for those Prussian-like professors.

Because he had nearly a 4.0 grade average, he knew he should be accepted. The obstacle again was money. The medical school was OU's costliest option. Despite the fact that most first- and second-year medical students didn't work due to the rigors of the coursework, Joe knew he would have to work every spare minute just to subsist. Luckily, since the medical school was moving the next year to Oklahoma City, he'd have more jobs to choose from.

Joe was admitted in 1928, but he was dead wrong about the jobs. He arrived with only enough money to pay his tuition and two weeks' room and board. His summer job on the wheat harvest had been a bust.

During the first two weeks of class, Joe spent every free moment vainly looking for work. He had no job, no prospects, and 50 cents to his name. He stared hard at the coins, and for the first time in his life, gave up.

He was putting his things in his old grip for the trip home when a classmate, Keeler Haney from Durant, walked in and asked what he was doing. After Joe explained, Haney told him to just sit tight. A few minutes later, Haney and several classmates presented Joe with grubstake money for two weeks' rent plus \$15.



Books bound by Joe Duer bear his Half Lazy D brand.

aged a few cultural and social dates. They consisted of going to a movie, seeing stripper Sally Rand do her thing, and attending a piano concert of Ignacy Paderewski, who also had been the Republic of Poland's first premier.

When Joe returned for the fall semester, he had settled on a major: pre-med. This was quite a conversion considering that doctoring had been on his short list of unfavorable occupations only months before.

After he had dropped pre-law, he began spending what little free time he had sampling coursework from other professional fields. (This didn't include education,

Sixty-two years later, sitting in his kitchen in Woodward recounting the story, Duer's eyes briefly fill with tears and his voice breaks. "I promised myself, by god, I wouldn't let those boys down. I'd, by god, get a job."

Joe charged back to *The Daily Oklahoman*, where he had previously tried to get a paper route. This time, he barged into the office of the circulation manager, a stern taskmaster named Halmbacher, and demanded a job.

Two hours later, Joe had a morning and afternoon paper route, which allowed him to squeak by financially.

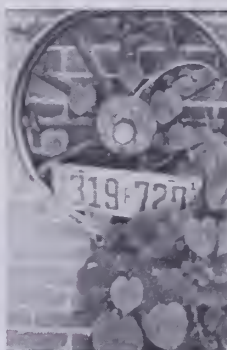
Academically, he was excelling, despite his jobs and the fact that the professors were pouring on the work. The casualty rate in the class soon exceeded 50 percent, and the survivors formed an exceptionally close bond.

They used this closeness to their advantage in an attempt to improve their pathology course. Grades were being dispensed arbitrarily, and one of the profs, nicknamed Blind George, couldn't see well enough to identify anything through a microscope. Once, Joe smeared some ink on a slide and, feigning ignorance, asked Blind George for help in identifying the "specimen." All slides were numbered according to the specimen, but only the profs had the key. George looked up the answer first and then, looking blurrily into the microscope, identified the ink according to genus and type.

As chair of the class's "ad hoc committee on complaints," Joe presented their accusation and evidence to the dean, Dr Leroy Long. "We'll get to the bottom of this," exploded the dean. He probably did, but not soon enough for Joe, who still didn't learn much pathology.

Nevertheless, Joe finished fifth in his 1932 class of 47 survivors. Less than half, however, were original members.

\* \* \*



A wheel from Beryl's first car adorns the Duer home.

**D**r Joe Duer, 29, hung up his first shingle in 1934 in his home county, Dewey. Though he was the third GP in Vici, the first was an alcoholic and the second, like Blind George, couldn't use his own microscope, nor hook up an IV.

Duer wanted to be near home, and he knew the medical need was great. Almost immediately, he had all the patients he could handle. Not that they were calling on him; he was spending most of his time making house calls. Even the serious cases were usually treated at home because most of the patients wouldn't go to hospitals; the public believed that people went to hospitals to die, not recover.

That perception had merit. People with diphtheria, small pox, typhoid fever, TB, toxemia, cancer, heart disease, or pneumonia often did die because those diseases had no specific treatments. Duer and his colleagues treated them "expectantly," meaning addressing their symptoms and fears and hop-

ing that they would recover naturally.

Of course, Duer did operate in a hospital in Woodward. During his internship at Oklahoma City's Wesley Hospital, his interest in surgery peaked, and he got more surgical experience than most interns.

Characteristically, he was working very hard in his practice. But the long hours had more to do with meeting his patients' needs than his own. Duer did have some help with at least part of his practice: when he did home deliveries, he was assisted by his wife, Beryl.

They had met at Wesley Hospital two years before. He was an intern and she a senior nursing student. Though they worked around each other and noticed one another's skills, they did not date. They were focused on their careers.

Joe had assumed he would get married at some point, but not Beryl. She had no wish for a family because her own childhood



In 1934, a year after they were married, Joe and Beryl arrive in Vici to launch Joe's practice.



often had been "hellish" due to her mother's schizophrenia. However, once Joe took an active interest in her and they started going out, he proved both persistent and persuasive. "Just as well practice out in Vici as here," he said romantically.

Beryl thought Joe was the best intern in terms of energy, diagnostic ability, and (perhaps most importantly) his willingness to help the nurses.

They spent two years in Vici and another two in the county seat, Taloga. By the time they moved to Woodward in 1939, they had two children, Wesley — named for the hospital where the couple met — and Carol.

Though Woodward had ten physicians by then, several of them were verging on retirement. Dr Darius Darwin, who needed help with a large practice, recruited Duer to work in his clinic. Woodward looked like a promising prospect. Its population of nearly 5,000 was expected to jump. With two railroads and two highways, it was already a regional center for oil, farming, and ranching.

Only the hospital, a poorly equipped 15-bed unit, was a drawback; but such was generally the case in rural communities across the country. Duer enhanced Woodward's health care immediately through his surgical skills, but his keen interest in surgery at Wesley probably had been an infatuation, for his interest had cooled.

Still, he upgraded his surgical skills several times over his early practice years through courses offered in Chicago and the Mayo Clinic. He operated on everything except brains and chests, and a surgical nurse with wide experience once told one of Duer's patients that he was the finest surgeon she had ever seen.

About the time the Duers moved

to Woodward, the war in Europe broke out. On the first anniversary of Pearl Harbor Day, he enlisted in the navy, but was assigned to the marines and wound up in a place that has symbolized marine valor and gallantry ever since: Iwo Jima.

Lt Duer was on the island only 72 hours, but it would be hard to overemphasize the intensity and horror of that experience.

The military objective was to take the island from the Japanese who were ensconced in the volcanic hills and mountains above the beachhead established by the marines. Though the marines received air support from carrier-based planes, any American troop advance resulted in massive casualties; like shooting fish in a rain barrel, the men said.

The American strategy was uncomplicated. On the order to move up, the marines would advance several yards while exchanging fire, then dig a foxhole to jump into and wait for the shooting to stop.

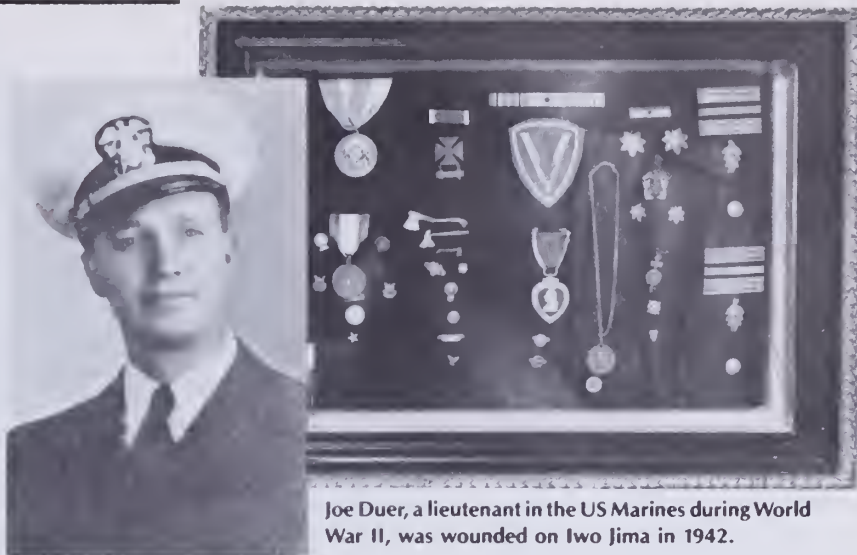
Duer landed on the beach only minutes after the front line had been established. He heard a marine yell, "Talulah," the code word for medic. Amid a fierce artillery attack, Joe crawled to the

man, who had been shot in the back. Explosions and shots reverberated around them, and Joe was shaking so much he could hardly get the wounded man's shirt off.

Just then a mortar exploded and buried them in sand. The wounded marine looked up at Duer and said, "Gee, Doc, that was pretty close, huh." That calmed down Joe, who simply decided that if he got hit, he'd probably never even know it.

Under constant to intermittent fire, Duer moved along the foxholes tending to the wounded and directing his medical corpsmen. Once, a marine next to him was blown 10 feet into the air and inexplicably wasn't even wounded. Later, in a captured Japanese blockhouse that Duer was using as an aid station, an artillery barrage decapitated one of his corpsmen and seriously wounded two others. One of them, with a sucking chest wound, began turning blue. Duer removed a large safety pin from his shirt and used it to close the wound. His color returning, the man said, "God, Doc, that feels a helluva lot better."

The bullet with Joe Duer's name on it arrived the next day. After spending a chilly, misty night in a



Joe Duer, a lieutenant in the US Marines during World War II, was wounded on Iwo Jima in 1942.

foxhole, Joe and the unit had been under constant attack throughout the morning. In retrospect, it seemed inevitable that Joe would be hit; the questions were when and how severely. Nearly every man who had come ashore with Duer had been injured or killed.

Joe was shot in the knee while crouching in a foxhole next to a chaplain. Deciding then that the spot was too hot, he rolled down an embankment, right into a tank land mine . . . which didn't go off. He was evacuated to a hospital ship and convalesced in Hawaii, where he and some friends "left tracks all over Oahu." He had returned to his unit for the imminent and surely horrific invasion of the Japanese islands when "Little Boy" and "Fat Man," two atomic bombs, were detonated and the war suddenly ended.

\* \* \*



**D**uer's introduction to a new age of practicing medicine occurred dramatically a few weeks after he was given some samples of a new drug. The pharmaceutical rep said the pills were supposed to cure streptococcal infections. "Oh, yeah?!" said a skeptical Dr Duer.

Nevertheless, he put them in his bag. A couple of weeks later, he was called to treat a 9-year-old girl with severe erysipelas, a streptococcal infection. She had a fever

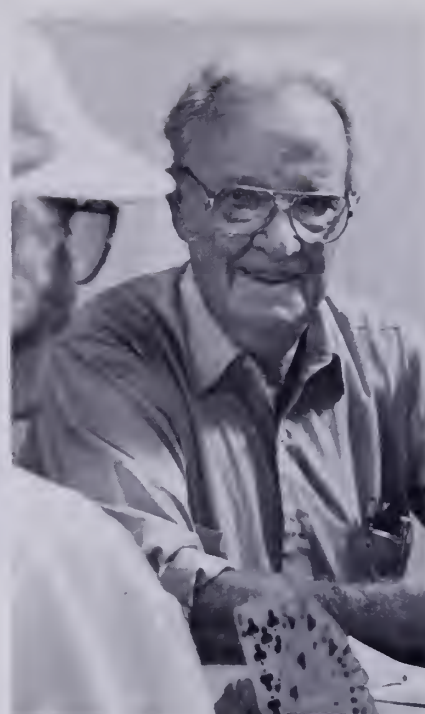
of 105° and was in a coma. Though Duer didn't tell the family, he believed he would soon be writing out a death certificate.

While he was trying to get his patient's temperature down and fluids up, Duer remembered those pills. He gave one to the little girl and gave her parents directions for giving more, saying he'd return the next day unless they needed him sooner (translated: if she dies). When Duer returned the next afternoon, he was greeted in the yard by the girl's jubilant parents. The little girl was sitting up in bed smiling. Duer, deeply moved, told the parents they had better get down on their knees and thank God that he happened to have the sulfa drugs that saved their daughter.

After the war, with the availability of antibiotics, doctors' medical effectiveness continued to improve, and federal Hill-Burton funds helped many rural communities build new hospitals. However, as it happened, it took an act of God to help Woodward get a new hospital. . .

Dr Duer was annoyed. After a very long and taxing day, he had arrived home after 8 PM wanting a drink, his supper, and to be left in peace. Instead, Beryl announced the family was going out to eat.

A storm was blowing in as twilight descended on Woodward. Storms were common that time of year; it was April 9, 1947. By the time the Duers had ordered their dinner, Doc was getting worried. He was up looking out the cafe's front window when the lights went out. At 8:32, the front window exploded outward into the street. The sound of the howling wind gave way to a roar like some unholy freight train loose on Main Street.



Joe and Beryl relish their bridge games.

"Get under the table," shouted Doc, who didn't heed his own warning and returned to the window. He was joined by Beryl (only Carol got under the table), and they saw a three-foot high sheet of flame extending down the street. The flame was actually a solid wall of sparks resulting from tumbling metal objects striking the pavement.

A few minutes later, the Woodward tornado was history. At the time, it was the worst ever to hit an Oklahoma community: 104 killed, 2,000 injured, 3,000 homeless, and \$4 million in property damage. About two-thirds of Woodward was destroyed. Duer and the town's other doctors worked through the night and into the next day, when doctors from nearby communities arrived to help.

Many of the injured had to be treated in other hospitals. At 15 beds, Woodward's hospital was totally inadequate, and an embarrassment to the community. As a result, the citizens passed a bond issue for a new 50-bed hospital. It



opened in 1952, and Joe Duer was its first chief of staff.

By then, he was seeing many more patients daily (about 40) because he was treating more of them in his office and hospital than in their homes. Even so, his practice philosophy and manner didn't change. Doing the job right meant showing his patients that he was interested in them and wanted to help. It if took an hour for the patient to get to the point, or for him to gain the patient's confidence and alleviate his or her fears, so be it.

When he began practicing during the Depression, many of his patients couldn't pay or paid in kind. Once, after a lengthy home visit, he was given a small bag of popcorn. Even after the war, with the economy booming, Duer's fees were minimal. Someone at Blue Cross/Blue Shield told him he had the lowest fee schedule of anyone in the state.

He was unimpressed by that; his fees were irrelevant if he and his family were doing all right and his patients were getting cared for. However, a threat to the sacred physician-patient relationship was becoming apparent. And it had grown, ironically, out of health insurance plans that the medical profession helped to develop. If a company (or the government) was going to pay for health care, then the payer had a right to some degree of control.

Though their say was modest initially, by the early sixties, with Medicare legislation pending, the spectre of socialized medicine was featured in editorial cartoons like a malevolent genie in a bottle.

Duer thought that any worthwhile occupation was worth working for. And since 1946, he had been demonstrating that by working on various committees of the

state medical association. Some of his colleagues felt he was well qualified to be its president. However, the leadership had always come from the Oklahoma City-Tulsa axis. To break that precedent, and to rally the members to action against the Medicare bill, Duer agreed to run for president in 1963 against Dr Peter Russo of Oklahoma City. Duer lost by one vote, but said he had learned something valuable: "Next time, I'll vote for myself."

Russo, the president-elect, died shortly before the association's annual meeting. A delegation of physicians, including many of the past presidents, asked Duer to run again. He agreed and won.

Feeling not unlike a crusader searching for the Holy Grail, Duer, as president of OSMA, was on his own mission. His message: "Wake up, doctors! We're fighting socialized medicine right now, and we're losing!"

With Beryl at his side, he headed down the highway, determined to address every local med-

ical society and as many civic groups and PTAs as he could. He wrote his own speeches, peppering them with occasional wit and including nostalgic references to the "good old days," dire warnings, and calls to action. Some of his articles and speeches seem somewhat ponderous today, but laying it on thick can be a by-product of passion.

Crisscrossing the state, he was greeted by polite audiences who didn't seem to share his fervor. Occasionally, Duer would encounter impolite audiences, and Beryl would wonder aloud why Doc was putting himself through this ordeal.

Still, he regarded being president as one of the greatest honors and privileges of his life, and he played a role in many accomplishments. For example, he and the association had a hand in the development of Oklahoma's new mental health plan and program. He helped select a new dean for OU's medical school and helped lay a foundation of solid capital



The Duers, married for 57 busy years, have spent the last 51 of them in Woodward.

funding for the expansion of the OU medical center.

Near the end of his term, however, Duer was ill and exhausted. He had put about 30,000 miles on his car on OSMA business. Unfortunately, he felt he had failed to ignite the membership. He thought his was a voice in the wilderness — if not easy to ignore, at least easy to forget. He believed that the profession was drowning in inertia and apathy and would be no match for increasingly powerful third-party payers, including the biggest of them all: the federal government.

The day after his term expired, he had the gall bladder operation he had been putting off. Then, he returned to Woodward and tried to scale down his practice over the next few years; but his patients wouldn't let him. So on April 1, 1969, he retired.

Accompanying the newspaper story on his retirement was a photo of Duer grinning from ear to

ear. He must have been thinking about his prospects.

\* \* \*



Last summer, just before he and Beryl left to attend the wedding of one of their grandsons, Joe was sitting in the kitchen with a list of things to do. He looked over the list, and suddenly said that at 85, he knew he wouldn't be around much longer. He said he'd had to "look at his hole card" twice since his retirement. He'd had a melanoma removed from his hip and a radical prostate surgery. He told some din-

ner companions on a cruise ship one night about those operations, noting that he was now a bona fide "half-assed doctor."

Joe looked out at his forest again. "Look at that out there. I've been painting for years, but just recently learned more about natural beauty, about color and light than ever before. Just because I took the time. It's another blessing.

"I used to tell my patients, 'Count your blessings before you count your symptoms.' It works. You've only got one life; you never did it before and you'll never do it again."

Beryl nods. "No rehearsals, either," she says, for once getting in the last word. ¶

*Richard Green is an Oklahoma City freelance writer.*

*Jim Thomas is a staff photographer at the University of Oklahoma Health Sciences Center. His work has been featured in a number of OUHSC publications.*



*Washington Report***OSMA contingent lobbies state delegation in Washington, DC**

Since 1976 your Oklahoma State Medical Association has represented you in the United States Congress through the Council on Governmental Activities. The council is constantly reviewing key health legislation, as well as regulations, and conveys your positions to the Oklahoma congressional delegation.

One of the key components of the council is its aggressive and timely visits to the nation's capital. These Washington visits afford the OSMA with face-to-face meetings with each congressman and senator. The OSMA Washington program has been unique for several years; however, it now serves as a model for other state medical associations, as our program is currently being duplicated by other associations across the country.

On September 9-11, 1990, the OSMA sent a delegation consisting of Dr Perry Lambird, Claudia Kamas, Robert Baker, and myself to Washington, DC, to lobby our congressional delegation on a number of key health issues. The following will serve as a report of that visit.

**Item 1 — Single Reimbursement Zone.** For many years the OSMA has petitioned Congress and the Health Care Financing Administration (HCFA) to create a single Medicare reimbursement zone in Oklahoma. We have argued constantly that Oklahoma's current five Medicare reimbursement zones are not equitable and are damaging the delivery of health care services, especially in rural Oklahoma. Although a single zone for Oklahoma has been an OSMA priority for several years, it was not until recently that we were able to acquire full Oklahoma congressional delegation support for a single zone, even if it must be "budget neutral."

To date our entire congressional delegation has signed a letter to Dr Gail Wilensky at HCFA urging the immediate creation of a single zone. Our recent visit with Oklahoma's congressmen gave us every indication that a single reimbursement zone is not far away. We anxiously await Dr Wilensky's decision on this matter.



Richard J. Boatsman, MD (left), presents a plaque to Oklahoma Congressman Mike Synar commending his efforts to curb the use of tobacco products. John Montgomery, Washington attorney representing the OSMA, looks on.

**Item 2 — CLIA 88.** Proposed regulations set up by the Clinical Laboratory Improvement Act of 1988 have become the number one regulatory issue in our deliberations before Congress. Your Oklahoma State Medical Association has organized numerous meetings with HCFA Administrator Gail Wilensky and the Oklahoma congressional delegation. Additionally, we have individually, collectively, and with the assistance of the Oklahoma Hospital Association, the American Hospital Association, and the American Medical Association lobbied Congress for repeal of the personnel requirements proposed in the CLIA regulations. Our deliberations with Congress have focused on the fact that if the personnel requirements were mandated, at least 30 to 40 of Oklahoma's 150 hospitals might have to close their doors. Also, physician office laboratories, currently operated by primary care doctors, would be rendered ineffective.

Through the Council on Governmental Activities, the OSMA's arguments against CLIA-88 have become so widespread that the entire House of Representatives Rural Health Coalition has co-signed a letter against the personnel requirements outlined in the CLIA regulations. To date, we are hopeful that

# We Understand Commitment

We understand your personal commitment to offer the best medical care available to those you serve. Many long years of preparation, education, working hours and attentiveness have been invested, so you deserve to be served by folks who make the same professional commitments in their field as you in your own.

Financial planning is now more important than ever. With government regulations, insurance costs and controls, and general expenses changing every day, you need a stable financial institution with a solid commitment to the medical industry.

Whether you are starting your practice, expanding it, buying equipment or a home or considering any other financial action, our commitment is to present to you a package of financial alternatives.

We are anxious to discuss your commitment and we'll tell you ours. We serve Oklahoma Medical Professionals.



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these regulations will be re-written in such a manner as to take into account the diverse medical practices in Oklahoma. The positive outcome we hope to achieve will be greatly attributable to you, the membership of the Oklahoma State Medical Association. Through your hard work, over 6,000 letters were generated to HCFA and Congress. These letters are having a very positive effect and they are increasing our lobbying strength. HCFA has decided to postpone any implementation of the regulations until Spring 1991. We will keep you apprised of this very important issue.

**Item 3 — 125% Rule.** As a last-minute insertion into its 1989 reconciliation bill, Congress imposed balance billing limits of 125% of the local prevailing fee (or a physician's 1990 MAAC, whichever is less) on all services starting January 1, 1991. These limits, slated to take effect one year prior to the Resource Based Relative Value Scale (RBRVS), would lower revenues significantly for the very medical services scheduled for increases in 1992 under RBRVS! In addition, these limits would place the burden of anticipated RBRVS decreases on those physicians who were promised a gradual five-year phase-in of RBRVS cuts. Because your association recognizes the unfair outcome of the proposed 125% rule, the council and the AMA are supporting legislation to be offered by Senator Hollings of South Carolina to delay the implementation of the 125% rule for one year until the RBRVS goes into effect.

During our visit, your association was able to acquire support for the Hollings bill from Senator Boren and Congressman Synar. Both have been extremely helpful with this issue, which is very important because both are members of the Medicare authorizing committees in Congress. We eagerly await the passage of Senator Hollings's legislation and we will keep you apprised.

**Item 4 — Medicare Regulatory Relief.** This legislation, more commonly known as the Anti-Hassle legislation, has been introduced in both houses. The bills, HR 4475 and S 2591, are gaining substantial support in Congress. The Council on Governmental Activities has stressed the OSMA's support for these bills and is approaching 100% co-sponsorship from Oklahoma's congressional delegation. These bills are designed to reverse some of the onerous and counterproductive aspects of the Medicare program. Basic features of the bill are as follows:

1. Provide physicians with more complete information on Medicare utilization review policies.
2. Allow physicians to continue longstanding recip-



rocal agreements whereby a colleague cares for patients when the regular physician is not available.

3. Allow state medical associations or professional organizations to appeal payment denials on behalf of an entire class of physicians.
4. Establish a physician's advisory group to review Medicare Part-B Policy, requirements, and Medicare carrier implementation issues.
5. Prohibit Medicare carriers from charging physicians for information necessary for compliance with Medicare law.

As a majority of Congress has signed on as a co-sponsor, it is our belief that this legislation will become law in the not-too-distant future.

**Item 5 — 80% Floor Language.** The fifth and final point brought to our congressional delegation's attention was the OSMA and AMA position that we support and work to establish, in the Budget Reconciliation Act, a floor on Medicare payments for physicians' services at 80% of the national average prevailing charge. Our recent visit enabled our delegation to better understand this issue at the time the budget

was being drafted in the various congressional committees. The 80% floor language, adopted unanimously by the AMA House of Delegates, is understood by Oklahoma's congressional delegation and we expect their support of our position as the budget deadlines draw near.

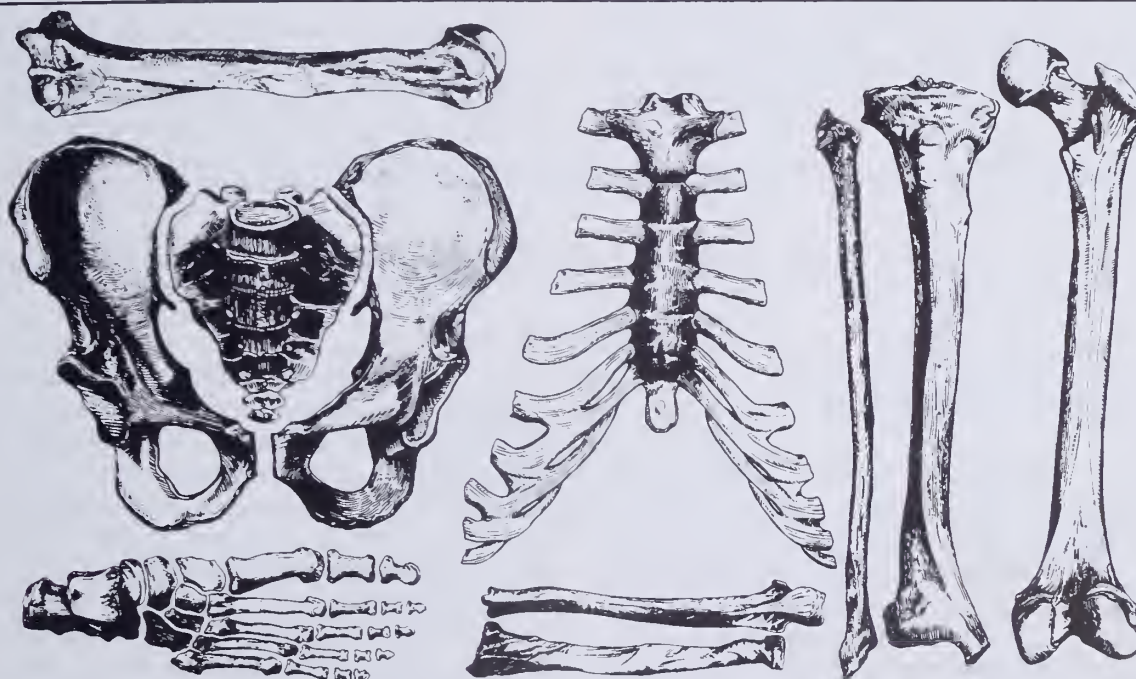
Overall, we can report to you a very positive visit with our congressional delegation. We have worked very diligently to supply each congressman's aide with the material necessary to prepare our congressmen to debate the issues so important to the OSMA. We believe that through your support the OSMA will continue to have the finest and most effective federal relations program in the country. The association, through the Council on Governmental Activities, appreciates your input at any time. Do not hesitate to contact me or council staff Robert W. Baker for additional information or explanation of these or any other federal issues.

Again, thank you for your continuous support.

—Richard J. Boatsman, MD

*Chairman*

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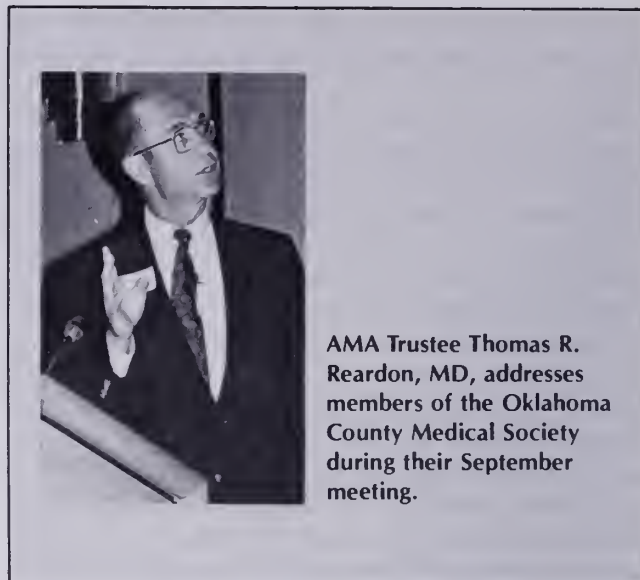
## *Physicians at the capitol*

### **Doctor of the Day program to resume with spring session**

The 1991 Doctor of the Day program will begin in February when the next session of the Oklahoma legislature convenes in Oklahoma City. Doctors wishing to participate should notify the OSMA as soon as possible.

The program gives Oklahoma physicians an opportunity to observe their lawmakers in action while volunteering their own professional services for a day. Doctors of the Day work at the capitol's first aid station from 9 AM until both houses have adjourned for that day, usually about 4 PM. Each doctor is introduced before the house and senate by his or her elected representatives.

The program was established in 1965 by the Oklahoma Chapter of the American Academy of General Practice as a service for both legislators and capitol employees. Medications and equipment are donated by pharmaceutical companies through the Oklahoma State Medical Association, which coordinates the Doctor of the Day program. Only primary care is provided; the station is equipped with basic office examination supplies such as ophthalmoscope, otoscope, sphygmomanometer, tongue depressors, adhesive bandages, etc. Only over-the counter medica-



AMA Trustee Thomas R. Reardon, MD, addresses members of the Oklahoma County Medical Society during their September meeting.

tions are available; doctors may bring their own prescription pads and medication samples if they wish.

The Oklahoma State Nurses Association assigns a nurse to work with the doctor each day; medical students also will have an opportunity to serve this year.

Physicians and students wishing to participate in the 1991 Doctor of the Day program should write or call OSMA Associate Director Claudia Kamas, OSMA, 601 Northwest Expressway, Oklahoma City, OK 73118, (405) 843-9571, 1-800-522-9452. **Q**

## **FROM THE OSDH**

### *State Department of Health*

### **Shanghai in Oklahoma?**



During the winter of 1989, an outbreak of influenza A/Shanghai occurred in a 50-bed nursing home in Oklahoma. Of the 53 residents, 28 (53%) developed flu-like symptoms; 12 (23%) were hospitalized, and 7 (13%) died. Of the 42 employees on whom information was available, 15 (36%) developed flu-like symptoms during the outbreak; several admitted to working while ill. One employee, a 29-year-old female, died of respiratory complications after flu-like symptoms. Eight symptomatic persons (3 employees and 5 residents) had throat swab specimens which were culture

positive for influenza A/Shanghai. In addition, another 15 persons had serologic evidence of recent infection with influenza A/Shanghai. (The influenza vaccine for the 1989-90 season included A/Shanghai, as well as A/Taiwan and B/Yamagata and, therefore, covered the outbreak strain.) While 41 of the 53 (77%) residents had previously been vaccinated, only 13 of the 42 (31%) employees had been vaccinated. Of the 54 vaccinated persons, 35 (65%) (5 employees and 30 residents) had been given the vaccine in the gluteus rather than the deltoid muscle. Despite this, vaccine efficacy for residents was 56%. This outbreak might have been prevented by higher vaccination rates, particularly among the staff, and by giving the vaccine in the deltoid, as is recommended.

*(continued on next page)*



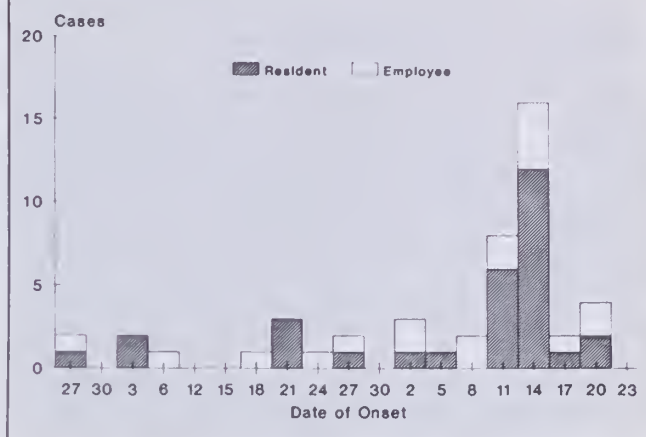
### WHAT CAN BE DONE TO PREVENT THE FLU?

Since 1957, there have been at least 19 epidemics of influenza in the United States. Each caused over 10,000 deaths, and three caused over 40,000 deaths; 80%-90% of the deaths occurred among the elderly.

In Oklahoma, the influenza season starts in late November and continues through March. Each year a new vaccine is developed to protect against the strains of influenza virus most likely to occur in the community during that season. The change in the strains of influenza virus from year to year, along with the decline in immunity, necessitates vaccination every year with that season's vaccine.

Typical influenza illness is characterized by abrupt onset of fever, fatigue, sore throat, and non-productive cough. More severe illness may be seen in up to 25% of those infected, most commonly manifested as primary influenza pneumonia or secondary bacterial pneumonia. Pneumonia often requires hospitalization and sometimes results in death. Most of the severe complications occur in the elderly and the debilitated. In this outbreak, 23% of the residents were hospitalized, almost all with pneumonia, and 13% died.

Fig. 1 Outbreak of influenza A/Shanghai in an Oklahoma Nursing Home, 1990



The most important reason to vaccinate nursing home employees for influenza is to prevent spread of the influenza virus from staff to susceptible residents in whom the complication rate is much higher. However, even healthy young adults, such as nursing home employees, may develop serious illness and die. In the above outbreak, the employee who died had not been vaccinated.

(continued)

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## Shanghai in Oklahoma (continued)

Given the one- to three-day incubation period for influenza, the epidemic curve from this outbreak suggests spread of illness from nursing home employees to residents (Fig 1). Illness occurred in several staff members, but not among residents, one incubation period prior to the outbreak of illness in residents. Several of the employees admitted to working while ill with high fevers. Influenza is spread easily from person to person by coughing; therefore no staff member should ever work when ill with a fever and cough. Furthermore, all residents should be confined to their rooms when ill with fever and cough to prevent spread of influenza to other residents.

A strong influenza immunization program is the key to the prevention of illness and outbreaks. It is recommended that all persons age 65 and over, all persons with chronic disorders, and all nursing home residents and employees should be vaccinated yearly with the current influenza vaccine. Ideally, vaccine should be given in early November to protect for the entire season. However, if an unvaccinated person is identified later in the influenza season, the vaccine should be given at that time. In adults, the vaccine should be given as one dose of 0.5 ml of vaccine in the deltoid muscle (upper arm) with a 1 to 1½ inch, 22 gauge needle. The vaccine should not be given in the gluteal area because of the possibility of reduced vaccine efficacy.

Free influenza vaccine is provided to any Oklahoma nursing home for their *residents and staff*, through the Immunization Division of the Oklahoma State Department of Health. For information on free

vaccine or about influenza vaccination, please call (405) 271-4073.

### NURSING HOME CHECKLIST

It is recommended that the following guidelines be implemented in all nursing homes to prevent influenza. Please keep this checklist handy to ensure all appropriate steps are taken in your facility.

- ☐ All nursing home residents should be vaccinated in early November, with the current season's influenza vaccine.
- ☐ All nursing home employees should be vaccinated in early November, with the current season's influenza vaccine.
- ☐ Ensure that all new residents and employees arriving during the influenza season either have a record of vaccination or are vaccinated at the time of arrival or employment.
- ☐ Ensure that all vaccine is given correctly. Additional information may be obtained from the package insert, or by calling the Immunization Division.
- ☐ No employees with fever and cough should report for work. All residents with fever and cough should be confined to their rooms for the duration of illness.
- ☐ If concerned that an outbreak of influenza may be occurring in your nursing home, please contact the Immunization Division promptly. Further information on methods to help control the spread of disease is available. J

—Prepared by Patricia Quinlisk, MD, MPH, and Lauri Smithee, MS, Oklahoma State Department of Health

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## REACTION TIME

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### Reader asks doctors to speak up when their patients are smokers

*To the Editor:* The newly released 1990 Report of the US Surgeon General on the Health Consequences of Smoking is devoted to smoking cessation, and in particular, the benefits of quitting smoking.

According to government surveys, more than 85 percent of smokers want to quit. The single best thing a health professional — especially a physician — can do for the health of patients who smoke is to help them break the habit for good.

More than 70 percent of American smokers visit their physicians at least once a year. This fact places

the health professional in a unique position to influence decisions regarding tobacco use. Studies have shown that patients who hear a brief stop-smoking message from their physician are 2 to 10 times more likely to quit than those whose smoking is ignored when they come in for medical care.

Many programs are available to motivate, instruct, and support patients who want to quit. Physicians and other health care providers can be a resource to direct patients to public programs and materials from local offices of the American Cancer So-



ciety, American Heart Association, and American Lung Association. These organizations all have materials designed for use by health professionals who want to guide patients through the quitting process.

On average, if we were to counsel all of the smoking patients we see in a year, only 5 to 10 percent might quit successfully. Still, if half the physicians in this country got 10 percent of their smoking patients to quit, there would be 2 million new *non-smokers* each year!

The benefits and techniques of smoking cessation are being covered extensively in the media in conjunction with the release of the new Surgeon General's report. I strongly urge my colleagues to seize this opportunity to add your voice in support of the benefits of smoking cessation and to take action now to encourage smokers to quit.

—Richard Bottomley, MD  
President, Oklahoma Division  
American Cancer Society

## OKC urologist suggests residents need more training in CPT coding

*To the Editor:* I have just finished reading your editorial ["Truth or Consequences Encoded"] in the September issue of the *Journal of the Oklahoma State Medical Association*. I must say that I totally agree with your comments and assessments. As a relatively new physician in the field of urology, I was absolutely amazed at the reimbursement for procedures that I took for granted as a resident.

However, I think some of this blame needs to be laid upon the feet of the medical educators themselves. I had only a vague knowledge of a CPT code as a "surgeon in training." I believe if more residents were aware of the financial ramifications of medicine when they were training, they would be more willing and flexible to new kinds of reimbursement.

Once again, I look forward to your editorials and appreciate the fine job that you are doing.

—Daniel P. Barnes, MD  
Oklahoma City

## Thomas E. Slimp, MD 1917 - 1990

Longtime Tulsa dermatologist Thomas E. Slimp, MD, died September 4, 1990. A native of Frankfort, Ind, Dr Slimp earned his medical degree from Syracuse University College of Medicine in 1950. He practiced medicine in Logansport, Ind, and New Orleans before moving to Tulsa and applying for OSMA membership in 1960. During World War II, Dr Slimp served on active duty with the US Navy from 1941 to 1946.

## Raymond Emison Daily, MD 1903 - 1990

OSMA Life Member Raymond E. Daily, MD, a retired general practitioner, died September 3, 1990. A 1932 graduate of the University of Oklahoma School of Medicine, Dr Daily had a private practice in Bixby for more than 30 years.

## Robert Eldon Dillman, MD 1922 - 1990

Robert E. Dillman, MD, a native of Fairfax, died August 29, 1990, in Tulsa. After graduating from the University of Oklahoma School of Medicine in 1946, Dr Dillman served five years' active duty with the US Navy during World War II. In 1953 he established a private obstetrics and gynecology practice in Tulsa. He moved to Conway, Ark, in 1989.

## Claude Elbert Lively, MD 1906 - 1990

Retired McAlester physician Claude E. Lively, MD, an OSMA Life Member and recipient of the association's 50-year pin, died August 19, 1990, in Irving, Tex. Born in Woodward, Indian Territory, Dr Lively was graduated from the University of Oklahoma's School of Pharmacy in 1930 and School of Medicine in 1934. The following year he moved to McAlester, where he maintained a general practice until his retirement in 1986. □

Reader comment is always welcome. Address Reaction Time letters to  
Ray V. McIntyre, MD, Editor-in-Chief, OSMA JOURNAL,  
601 Northwest Expressway, Oklahoma City, OK 73118.

**Prevention in Childhood of Health Problems in Adult Life.** Edited by Frank Falkner. Geneva: World Health Organization, 1986, pp 135, illus, price not given.

This monograph of the World Health Organization deals with a vitally important issue in present-day pediatrics. Many adult health problems have their origins in infancy and childhood, and the most effective means of prevention may be those which identify problems beginning during early life.

The volume begins with a pertinent introduction by the editor, Frank Falkner. He cites several examples central to the topic of the publication. For the purposes of this volume, childhood is considered to begin at conception.

The remainder of the book consists of nine essays by different authors which deal with important topics. Two of the essays deal exclusively with fetal prob-



lems. Lloyd and Wolff provide an interesting chapter on overnutrition and obesity. The essays on perinatal disease, infectious diseases of childhood, and mental health provide particularly good overviews. Miller and Barmes, in a chapter entitled, "Oral Health," deal with the etiology, consequences, and prevention of dental disease, a frequently neglected or under-rated subject.

As is usually the case with a multiauthored book, some portions are better organized than others. The volume is valuable in delineating the problems and providing background material. Some of the knot-tiest but most important problems are defined, and possible approaches to solutions are discussed. All physicians who have the responsibility of dealing with children will benefit from the information in this small book.

—Harris D. Riley, Jr., MD  
Oklahoma City

**New Vaccine Development: Establishing Priorities. Vol. 11: Diseases of Importance in Developing Countries.** By the Committee on Issues and Priorities for New Vaccine Development, Division of Health Promotion and Disease Prevention, Institute of Medicine. Washington, DC: National Academy Press, 1986, pp 432, cost not given.

Volume I of *New Vaccine Development* has been previously reviewed (*J Okla State Med Assoc* 82:325-

326, July, 1989). In Volume I the background, history, and approach to the development of new vaccines were outlined. Volume I reviewed priorities in the United States.

Volume II focuses on developing countries. The importance is clearly apparent. Young children in the developing nations of the world are in continual peril of disease. Nearly 15 million under the age of five die every year and many of those who survive are physically or mentally impaired by disease for the remainder of their lives. A quarter of the deaths are caused by some form of diarrhea, and nearly as many children are victims of acute respiratory infection.

The committee recommended that top priority for accelerated vaccine development should go to infections caused by *Streptococcus pneumoniae*. The disease that was ranked second in priority for control by a vaccine is rotavirus diarrhea. Other vaccine candidates ranked at high priority by the committee are malaria, typhoid fever, shigella, hepatitis B, and meningitis. There is also considerable discussion about the enormous cost of such programs.

This book will be an excellent reference for those interested in the many problems of international health.

—Harris D. Riley, Jr., MD  
Oklahoma City

**History of the American College of Physicians: Executive Perspectives, 1959-1977.** By Edward C. Rosenow, Jr. Philadelphia: American College of Physicians, 1984, pp 451, illustrated, \$16.50.

I obtained this book from the library primarily because one of my former mentors, Rudolph H. Kampmeier, MD, of the Vanderbilt University School of Medicine, served as president (1967-68) of the American College of Physicians and I had heard him speak frequently of the "College." Indeed, the career and contributions of Dr Kampmeier are well detailed on pages 162 through 166, as well as in several other places in the book. In addition, I found that this report of the affairs of this organization between 1959 and 1977, which covers Dr Rosenow's tenure as executive director, contains a wealth of information regarding the activities of this important association. It reflects the trends and pertinent issues in medicine as well as the supporting facts and figures during this period of time. It will be of particular interest to members of the college but also to others concerned with major events in medicine during the period covered.

—Harris D. Riley, Jr., MD  
Oklahoma City



## IN MEMORIAM

### 1989

George Harry Garrison, MD	October 5
Monroe Ruework Jennings, MD	October 27
Edmund Gordon Ferguson, MD	November 17
Don Lee Dycus, MD	December 6
Sylvester Robert Shaver, MD	December 16
Charles Edwards Leonard, MD	December 27

### 1990

John Justice Batchelor, MD	January 8
Fred W. Sellers, MD	January 11
Dewey Lee Mathews, MD	January 18
Powell Everett Fry, MD	January 28
Alpha Louis Johnson, MD	February 3
Marshall W. Oppen, MD	February 12
Vincel Sundgren, MD	March 1
Glen Smith Kreger, MD	March 25
Martin James Fitzpatrick, MD	March 27
David Charles Lowry, MD	March 30
Robert Alan Johnston, MD	April 9
Hervey Adolph Foerster, MD	April 15
Paul E. Kaldahl, MD	May 4
Homer Vincent Archer, MD	May 8
Ray Maxwell Wadsworth, MD	June 11
John Howard Baker, Jr., MD	June 13
David Sprouse Dycus, MD	June 28
Paul Olden Shackelford, MD	July 27
David Shapiro, MD	August 11
Doyle L. Patton, MD	August 12
Edward McLain Thorp, MD	August 16
Murlin Knight Braly, MD	August 18
Claude Elbert Lively, MD	August 19
Robert Eldon Dillman, MD	August 29
Raymond Emison Daily, MD	September 3
Thomas E. Slimp, MD	September 4

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**PONCA CITY, OKLAHOMA: A community of approximately 30,000 population is seeking several primary care physicians (Internal Medicine — Family Practice) to serve the healthcare needs of the area.** Retirement and relocation to continue medical education has taken five primary care physicians from the community during the last four months. Both the local Medical Center and medical staff support this search effort. Incentive packages will be offered to the right physicians including relocation expense reimbursement, net income guarantee, and perhaps other items. Contact: Garry L. England at (405) 765-0582 or (405) 762-7246 or in writing to St. Joseph Regional Medical Center of Northern Oklahoma, Inc.; 14th and Hartford; P.O. Box 1270; Ponca City, OK 74602.

**PONCA CITY, OKLAHOMA: St. Joseph Regional Medical Center of Northern Oklahoma, Inc., in conjunction with its Emergency Department physician staff, is seeking full-time and part-time physicians for its active department.** Prefer Board certification or qualification in emergency medicine, family practice, or internal medicine. Also, prefer physicians with ACLS and ATLS certification. Good compensation package including malpractice insurance and reimbursement. Contact: Gary Moyer, M.D. (405) 765-0541 or (405) 762-2846.

**FAMILY PRACTICE — Stillwater, Okla. Seeking family doctor to join two others in a primary care practice (associated with internists and pediatricians). Share call three ways. Compensation and fringe benefits competitive. Early 1991 is desirable. For more information call 405-624-2525.**

(continued)

## Physicians Wanted (continued)

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**Internal Medicine physicians needed. Due to explosive growth, multi-specialty group seeks BE/BC physicians in Internal Medicine.** Excellent guaranteed salary and benefits package with productivity incentives. Excellent fringe benefits package included. Wonderful lifestyle. Send CV to Physician Recruiter, Health First Medical Group, 850 Ridge Lake Blvd., Suite GO2, Memphis, TN 38120, or call (901) 684-3434. EOE/M/F/V/H

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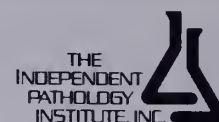
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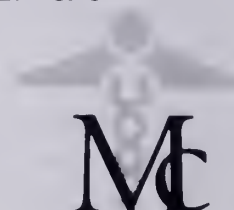
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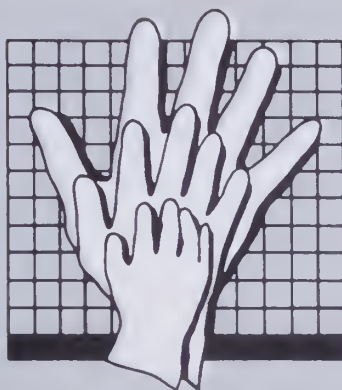
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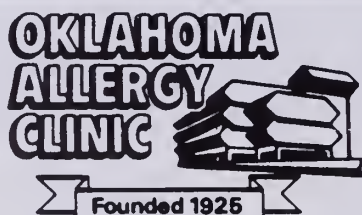
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**W**e have begun a new decade. We have new leadership to follow. Let's get behind them and work with them to help keep medicine in the nineties great! Legislative action is quickly becoming the heartbeat of medicine and the AMA Auxiliary. Therefore, we must educate and motivate *every* auxiliary member to participate in any action which will influence the status of pending bills before the legislature. There are many new faces appearing this legislative session; we must know who they are and what they stand for and offer our knowledge to help keep them informed on medical issues.

Our major thrust this year, in conjunction with the OSMA, will be to focus on legislative action. Together we can effectively influence the political arena. The two most pressing issues are that of mandatory assignment and perinatal care. Legislators are being pressed on all sides by these concerns; therefore, it is imperative that we in the medical community arm them with knowledge of how these actions will either positively or adversely affect medicine.

You may be asking How may I help? What do I do now? It is easy. Just two simple steps. 1. Read. Learn all you can to stay abreast. 2. Be ready to write and to call when notified. Let your legislator

know the facts and the medical community's position on pending legislation. Earlier this year the auxiliary's phone bank, upon notification from the AMA, went into action on the pending national beer and alcohol tax. It was exciting to participate and to see a mighty team united in a common endeavor. Imagine the effect of so many senators being flooded by hundreds of calls. It does make an impact. Let's be part of it.



We are grateful to live in a country where medicine is unparalleled and we can make a difference. So, let's team up, roll up our sleeves, and work to keep medicine first rate in the nineties. Your shining light, joined by all of us, can illuminate. We can make a difference. Let's do it now.

—Dawn Wood (James O., Jr.)

—Ann Rumph (David)

*Legislation and Phone Bank Co-Chairs*

■ **The Board of Trustees of the Oklahoma State Medical Association (OSMA)** is now accepting nominations for the 1991 Donald J. Blair Friend of Medicine and A.H. Robins awards. The Blair award recognizes a member of the laity who has rendered outstanding service and support to the medical community, and the Robins award recognizes a physician for contributions to the community.

Nominations should be directed to the Board of Trustees or OSMA executive offices, 601 Northwest Expressway, Oklahoma City, OK 73118. Winners will be selected at the board's February meeting and announced at the Annual Meeting next May.

■ **Copies of Oklahoma's new Directive to Physicians, or Living Will** as it is more commonly known, were mailed out with the August issue of *OSMA News*. The leaflet includes answers to some of the most frequently asked questions about the directive. Additional copies of the directive are available from the Oklahoma Department of Human Services Employees Library, (405) 521-3727.

■ **William P. Tunell, MD, professor of surgery** and chief of the Pediatric Surgery Section at the University of Oklahoma Health Sciences Center in Oklahoma City, has been elected chairman of the Surgical Section of the American Academy of Pediatrics. The Surgical Section has 500 members and is a component of the 15,000-member American Academy of Pediatrics. Dr Tunell's duties include serving as a liaison between the nation's pediatric surgeons and the American Academy of Pediatrics. Dr Tunnell, also chief of the Pediatric Surgical Service at Children's Hospital of Oklahoma, has served as a member of the section's executive committee for the past five years and also as a member of the organization's Board of Governors.

■ **A toilet plunger can be a lifesaver in more ways than one**, according to a letter published in the October 3 *Journal of the American Medical Association*. Keith G. Lurie, MD, of the University of California at San Francisco Medical Center, and colleagues report the case of a 65-year-old Iranian man with a history of heart problems who suddenly collapsed at home. The man's son, poorly trained in traditional cardiopulmonary resuscitation (CPR), attempted to restore his father's breathing and pulse without success. He then grabbed a toilet plunger and used it to

compress his father's chest for 10 minutes until paramedics arrived. Apparently this was not a new technique in the household: the mother had used the plunger to resuscitate the man six months earlier. Both times the man was revived. It was determined the man did not suffer a heart attack but did have irregular heart rhythms. The son later suggested to physicians that toilet plungers be placed next to all beds in the hospital's coronary care units. "We recommended that he take a basic CPR course but had to admit that it's hard to argue with success," the authors write.

■ **The OSMA's Doctor of the Day program** resumes in February when the 1991 Oklahoma legislative session begins. Physicians wishing to volunteer a day of their time at the capitol's first aid station and also see their lawmakers at work should contact OSMA Associate Director Claudia Kamas, (405) 843-9571 or 1-800-522-9452.

■ **The Oklahoma State Department of Health (OSDH)** now has available a 16"×23" color poster promoting awareness of the risk of perinatal transmission of hepatitis B and AIDS. The poster is useful in any waiting area where family planning, prenatal, and child health services are offered. Unlimited quantities of the poster may be obtained by calling the Films and Publications Division of the State Health Department, (405) 271-5188.

■ **The influenza season in Oklahoma runs from late November through March**, and now is the prime time for vaccinations. The State Health Department reminds physicians that their recommendations are the single most important factor in persuading patients to receive the vaccine.

■ **Available now from the Public Health Service** is a pamphlet entitled "Tuberculosis — The Connection Between TB and HIV." It provides basic information about TB, as well as its connection with HIV, and recommends testing for people at risk for TB. Written on a fifth-grade reading level, the pamphlet is intended for distribution at HIV counseling and testing sites, drug treatment centers, STD clinics, correctional facilities, TB clinics, and persons at risk for HIV infection. Copies may be obtained by calling the OSDH Films and Publications office at (405) 271-5724 or the 24-hour AIDS Hotline, 1-800-535-AIDS.





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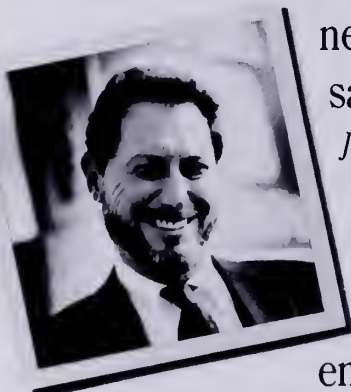
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*Ray V. McIntyre, M.D.*

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Dr. Holwick outside of hospital where she practices as a civilian traumatologist.



Dr. Holwick in operating room at Letterman Army Medical Center.

## JANN L. HOLWICK, M.D.

General and Trauma Surgeon.  
Captain, U.S. Army Reserve.

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**RESIDENCY** Harbor General Hospital—UCLA  
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**HOSPITAL AFFILIATIONS** St. Luke Hospital;  
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Administer cautiously to allergic patients.

Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics. It must be considered in differential diagnosis of antibiotic-associated diarrhea. Colon flora is altered by broad-spectrum antibiotic treatment, possibly resulting in antibiotic-associated colitis.

#### Precautions:

- Discontinue Cecilor in the event of allergic reactions to it.
- Prolonged use may result in overgrowth of non-susceptible organisms.
- Positive direct Coombs' tests have been reported during treatment with cephalosporins.
- Cecilor should be administered with caution in the presence of markedly impaired renal function. Although dosage adjustments in moderate to severe renal impairment are usually not required, careful clinical observation and laboratory studies should be made.
- Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.
- Safety and effectiveness have not been determined in pregnancy, lactation, and infants less than one month old. Cecilor penetrates mother's milk. Exercise caution in prescribing for these patients.

#### Adverse Reactions: (percentage of patients)

Therapy-related adverse reactions are uncommon. Those reported include:

- Hypersensitivity reactions have been reported in about 1.5% of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs' tests each occur in less than 1 in 200 patients. Cases of serum-sickness-like reactions have been reported with the use of Cecilor. These are characterized by findings of erythema multiforme, rashes, and other skin manifestations accompanied by arthritis/arthralgia, with or without fever, and differ from classic serum sickness in that there is infrequently associated lymphadenopathy and proteinuria, no circulating immune complexes, and no evidence to date of sequelae of the reaction. While further investigation is ongoing, serum-sickness-like reactions appear to be due to hypersensitivity and more often occur during or following a second (or subsequent) course of therapy with Cecilor. Such reactions have been reported more frequently in children than in adults with an overall occurrence ranging from 1 in 200 (0.5%) in one focused trial to 2 in 8,346 (0.024%) in overall clinical trials (with an incidence in children in clinical trials of 0.055%) to 1 in 38,000 (0.003%) in spontaneous event reports. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy; occasionally these reactions have resulted in hospitalization, usually of short duration (median hospitalization = two to three days, based on postmarketing surveillance studies). In those requiring hospitalization, the symptoms have ranged from mild to severe at the time of admission with more of the severe reactions occurring in children. Antihistamines and glucocorticoids appear to enhance resolution of the signs and symptoms. No serious sequelae have been reported.
- Stevens-Johnson syndrome, toxic epidermal necrolysis,


and anaphylaxis have been reported rarely. Anaphylaxis may be more common in patients with a history of penicillin allergy.

- Gastrointestinal (mostly diarrhea): 2.5%
- Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment.
- As with some penicillins and some other cephalosporins, transient hepatitis and cholestatic jaundice have been reported rarely.
- Rarely, reversible hyperactivity, nervousness, insomnia, confusion, hypertension, dizziness, and somnolence have been reported.
- Other: eosinophilia, 2%; genital pruritus or vaginitis, less than 1% and, rarely, thrombocytopenia and reversible interstitial nephritis.

#### Abnormalities in laboratory results of uncertain etiology.

- Slight elevations in hepatic enzymes.
- Transient lymphocytosis, leukopenia, and, rarely, hemolytic anemia and reversible neutropenia.
- Rare reports of increased prothrombin time with or without clinical bleeding in patients receiving Cecilor and Coumadin concomitantly.
- Abnormal urinalysis; elevations in BUN or serum creatinine.
- Positive direct Coombs' test.
- False-positive tests for urinary glucose with Benedict's or Fehling's solution and Clinistest<sup>®</sup> tablets but not with Tes-Tape<sup>®</sup> glucose enzymatic test strip, Lilly).

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JOURNAL (ISSN 0030-1876) (USPS 285-000) is the official publication of the Oklahoma State Medical Association and is published monthly under the direction of the OSMA Board of Trustees at 601 Northwest Expressway, Oklahoma City, OK 73118. Second class postage paid at Oklahoma City, OK 73125. POSTMASTER: Send address changes to JOURNAL, c/o Oklahoma State Medical Association, 601 Northwest Expressway, Oklahoma City, OK 73118.

Subscription to the JOURNAL is included in membership dues. All other subscriptions are \$30 per year. Single issues are \$3 per copy, prepaid, subject to availability.

National advertising representative: State Medical Journal Advertising Bureau, Inc., 711 South Boulevard, Oak Park, IL 60302, phone (708) 383-8800.

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# JOURNAL

OKLAHOMA STATE MEDICAL ASSOCIATION

DECEMBER 1990

VOL. 83, NO. 12

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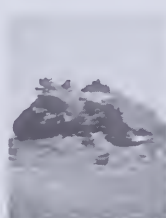
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## ON THE COVER



Rock Mary, a rugged outcropping near Hinton, was an important landmark for settlers heading west through Oklahoma.

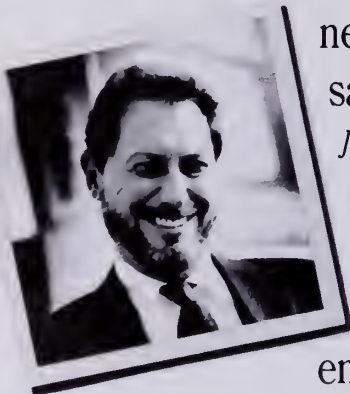
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## **An Opening Door**

Child abuse statistics have a gut-wrenching effect that makes us want to turn away and think about something else — anything else. Usually, we just give thanks that we personally have little part of the problem and gladly leave it to someone else — anyone else.

And yet, every year in Oklahoma 25 to 30 young children die at the hands of an abusive caretaker. Every year in Oklahoma about 8000 cases of child abuse are confirmed by the Department of Human Services. Of those children who do not die, many suffer permanent brain damage or physical impairments, and nearly all are severe emotional casualties. The survivors of these terrible episodes frequently become dysfunctional adults, many with learning disabilities, unable to love or be loved, unable to accept guidance, or to rear their own children equitably. In the adult, the emotional wreckage of child abuse is often hidden but insidiously pervasive, and may even be contagious. Most imprisoned felons were abused when they were children.

In the absence of intervention, child abuse episodes tend to be repetitive, and progressively violent. Our abused Oklahoma children sorely need earlier diagnosis, and interruption of the escalation of violence. For normal development, all children need to grow up feeling that they are cared for and loved; child abuse regularly causes long-term emotional injury.

The recent enactment of the Oklahoma Child Abuse Examiner bill gives Oklahoma physicians an opportunity to help alleviate the child abuse tragedy. The law establishes an Oklahoma State Chief Abuse Examiner's office, and authorizes the Chief Examiner to certify a panel of physicians to be Child Abuse Examiners for the state. Then any DHS office or District Attorney in the state will readily be able to have

the medical opinion of a certified Child Abuse Examiner. The widespread presence of expert testimony will then fortify the courts and the DHS in early child protection, and improve perpetrator treatment and quarantine. More prompt custody re-evaluations and stronger perpetrator treatment judgments will give the legal system an opportunity to interrupt the age-old cycle of child abuse.

The OSMA Board of Trustees approved the concept of the Child Abuse Examiner law about two years ago, in the hope of improving the health of the little children in Oklahoma. Now, the aspirations of the Board of Trustees can be fulfilled by the members of the OSMA who will step forward to be trained and certified as Child Abuse Examiners. The sense of commitment to the children will be the major requirement; the time and trouble required to become certified Examiners will be modest. Primary care physicians such as pediatricians and family physicians will adapt easily to this system. But any clinician who has medical contact with either children or the parents of minor children may well make a significant contribution to a new concept of child abuse prevention soon to unfold in Oklahoma. An improved quality of child abuse prevention may result from this effort.

For any human tribe to prosper, the children must be reared in a loving and nurturing milieu. We Oklahoma physicians now have a golden opportunity to mobilize medical science for Oklahoma's maltreated children. The children are the future, and we Oklahoma physicians should now join the effort to eliminate child abuse from Oklahoma.

*Ray V. McIntyre, M.D.*

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## New Beginnings

As this holiday season leads us to the end of 1990, there is much to celebrate. So much, in fact, that genuine new currents may be in the air.

Our Congress adjourned having cut Medicare payments substantially in a fruitless attempt to escape the morass of the deficit. The flavor of the non-financial pieces of legislation was very different, however. The rural/urban disparities in payment for hospital services will disappear. Significant floors have been placed under rural physician allowables. CLIA regulations were affirmatively addressed. The bulk of the AMA's anti-hassle bill was adopted. Proposals which would have limited the scope of action of physicians (or even criminalized them) were defeated. In short, this Congress treated physicians and hospitals with respect and concern.

Your American Medical Association, under the leadership of James Todd, MD, is developing a new management style. The accents are on active participation by volunteer physicians, delegation of responsibility and authority to competent staff, and joint undertakings by AMA councils and committees. We

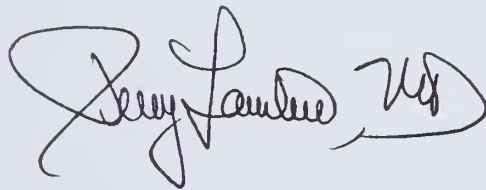


in Oklahoma have been in the forefront of the country in calling for changes such as these. It is a new day.

Your Oklahoma State Medical Association has enlarged its scope of activities in ways which may well influence the course of Oklahoma medicine well into the next century. The Committee on Women in Medicine and the Young Physicians' Section have inaugurated action programs designed to make our association indispensable to these important groups of physicians. Rebecca Tisdal, MD, and Donald Crawley, MD, deserve congratulations on their initial efforts. Your officers have met with the Oklahoma Bar Association to assess the possibilities for programs which may in the future bring together the two learned professions. Truly, new beginnings.

In this holiday month our hearts and thoughts are with our troops in the Gulf, and with all those who are separated from their families and friends. May they find joy and peace.

To all of you, Happy Holidays!



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## Cancer of the Prostate — An Overview

Johnny B. Roy, MD

The prostate, so named because of its anatomical position, is a small, chestnut-sized gland. Despite its small size, it is the source of one of the most prevalent internal malignancies in man. Recently the incidence of prostate cancer has surpassed even cancer of the lung. Nonetheless, little if anything is known about its pathogenesis or its natural history.

In 1989, estimates of the incidence of cancer of the prostate surpassed incidence of cancer of the lung for the first time, according to the American Cancer Society. Cancer of the prostate constitutes 1/5 of all incidents of cancer in men and accounts for 11% of cancer deaths. Approximately 100,000 Americans are diagnosed each year with prostate cancer, and 28,000 die annually.<sup>1</sup> In spite of the vast advancement in medical science, the chilling fact remains that death rates from prostate cancer have not changed for several decades. Little is known about the natural history of this common cancer. The etiology of the disease remains obscure, but the fact remains that age and androgens play a significant role. Cancer of the prostate is rarely seen in men younger than 50 years of age. The landmark study by Franks in 1954 showed that 30% of men over the age of 50 exhibited histologic evidence of prostate malignancy.<sup>2</sup> Incidental discovery of cancer after routine prostatectomy is reported to be 10.4% in men between the ages of 50 and 59. This incidence climbs to 60% in men over 90 years of age.<sup>3</sup> In support of the role

of androgen is the observation that eunuchs do not develop this malignancy, nor do they develop benign prostatic hyperplasia (BPH). Cancer of the prostate can be induced experimentally in animal models with prolonged sex hormone administration.<sup>4</sup>

### Diagnosis

The sad fact is that less than 20% of prostate cancer patients are diagnosed early enough to cure. A sadder fact is the absence of any reliable screening method or test with high sensitivity and specificity for the diagnosis of this disease. Digital rectal examination remains the mainstay of early diagnosis. Despite the simplicity of this routine examination, it is often neglected or deferred.

The discovery of the association between cancer of the prostate and serum acid phosphatase in 1938 ushered in the age of tumor markers.<sup>5</sup> Acid phosphatase has now been in use for 40 years. Despite the isolation of the prostatic fraction of acid phosphatase, the use of this marker for early detection of the disease has been disappointing. This enzyme is a reliable measure of the disease when the cancer has spread outside the confines of the prostate. However, about a third of the patients with distant metastasis (Stage D<sub>2</sub>) do not have elevation of this enzyme.<sup>6</sup> A search for a more reliable marker led to the identification of prostatic specific antigen (PSA) in 1978.<sup>7</sup> Though PSA is a useful marker, it suffers from being nonspecific for neoplasm since it is also elevated in BPH.<sup>8</sup>

The prostate is made up of epithelial and stromal tissue. Various clinical entities such as BPH, pros-

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tatitis, infarction, stone formation, corpora amylacea, and cancer alter the histology of the prostate. The availability of sophisticated imaging instrumentation, coupled with attempts to improve on the digital rectal examination, has led to vast interest in transrectal ultrasonography.<sup>9</sup> This test is relatively easy to learn and pragmatically it is in the realm of the practicing urologist. Despite the fact that this technology has the potential of enhancing our diagnostic ability, its long-term usefulness for screening is still to be defined. The vast body of literature relative to this imaging technique is testimonial to the interest of clinicians in their search for early diagnosis of this malignancy. The triad of digital rectal exam, PSA, and ultrasonography may lead to a more promising diagnostic tool.

### Staging of Prostate Cancer

Staging is the process of defining the extent of tumor involvement. The purpose of the staging is to categorize the disease to certain conventional management plans based on the rational, predictable, natural course in the host. Understaging in this malignancy is more the rule than the exception, which may account for therapeutic failures. Upstaging following radical surgery can reach 66% in some series.<sup>10</sup> There are two staging systems, the American Urological Association (AUA) System of A, B, C, D staging, and the International System of T, N, M.<sup>11</sup> Comparison between the two is not easy. Urologists generally prefer the clinically useful ABCD system shown in Table 1.

### Management

As mentioned earlier, the majority of the patients with cancer of the prostate present with advanced disease; consequently, palliation becomes the only available option. Treatment of prostate cancer is tailored to the stage of the disease as well as the histologic grading at the time of presentation. If the disease is discovered accidentally (Stage A<sub>1</sub>), observation is certainly an acceptable method of management since a small percentage would progress or show recurrence.<sup>12</sup> However, other options, shown in Table 2, have their advocates.

In Stage A<sub>2</sub>, a lesion with higher volume and a more sinister course, surgery or radiation is indicated. In this heterogeneous stage, regional nodal metastasis is found in up to 1/3 of the patients.<sup>13,14</sup> In Stage B, which theoretically is a localized disease, radical prostatectomy offers the most effective method of management.<sup>15</sup> Stage C disease remains somewhat of an "orphan," with no one management

Table 1. Staging

Stage A:	A <sub>1</sub> focal (few foci, well differentiated) A <sub>2</sub> diffuse (less differentiated)
Stage B:	B <sub>1</sub> small discrete nodule <2.0 cm B <sub>2</sub> large nodule (extending beyond midline)
Stage C:	local extension beyond prostatic capsule
Stage D:	D <sub>1</sub> metastasis confined to pelvis D <sub>2</sub> distant metastasis

group having a convincing therapeutic claim. Since hormonal, surgical, and radiotherapeutic treatment are all applied in this stage and none has demonstrated any superiority, it is best that a patient with this stage of disease be entered into a cooperative study if at all possible. It is only through such an endeavor that a rational treatment program can be formulated.

**Stage D.** Since Huggins demonstrated in his Nobel prize-winning work the dependence of prostate cancer on androgen, hormonal manipulation of one sort or another has been the mainstay in the management of advanced cancer of the prostate.<sup>16</sup> A working knowledge of the hypothalamic-hypophyseal, gonadal, adrenal axis is a prerequisite to understanding any hormonal therapy. The hypothalamus episodically releases leutinizing hormone releasing hormone (LHRH) that acts on the anterior hypophysis and in turn releases leutinizing hormone. LH binds to Leydig cell receptors in the testes, with subsequent

Table 2. Treatment Options

Stage A:	A <sub>1</sub> — Disease discovered accidentally after prostatectomy — Majority advocate observation
	A <sub>2</sub> — Observation — Radiotherapy — Radical prostatectomy
Stage B:	B <sub>1</sub> — Radical prostatectomy — Radiotherapy
	B <sub>2</sub> — Radical prostatectomy — Radiotherapy
Stage C:	C — Radiotherapy — Surgery — Hormonal therapy
Stage D:	D — Endocrine manipulation — Orchiectomy — Cytotoxic agents



production of testosterone. Testosterone is a pro-hormone, and its reduced form, dihydrotestosterone (DHT) is the active agent responsible for prostatic growth and development. About 90% of testosterone is synthesized by the testes, and the rest comes from the adrenals (androstenedione and dehydroepiandrosterone). Orchiectomy is effective in lowering serum testosterone by 95%. It is an effective treatment in Stage D<sub>2</sub> disease. A segment of this patient population may not respond due to the presence of hormonally independent cancer cells. The hormonally irresponsive cells may proliferate and account for the relapse. When orchiectomy poses a demasculinizing impact on an individual, exogenous estrogen in the form of diethylstilbestrol (DES) is equally effective. The superiority of estrogen over orchiectomy has never been established. Hypophysectomy and adrenalectomy were popular several decades ago, but replacement steroids were necessary. Hence these procedures have fallen by the wayside. The advent of LHRH analogue and aminoglutethimide provide chemical hypophysectomy and adrenalectomy. LHRH administration raises the testosterone level initially, but downgrades the pituitary (saturates the androgen receptors), which causes chemical orchiectomy by diminishing LH release. The DHT reaches castrate levels with the administration of this agent. The discovery of the nonsteroidal, antiandrogen flutamide has introduced the terms "total" and "combination" therapy, meaning suppression of both testicular and adrenal androgens.<sup>17</sup>

Clinical trials on the use of this total androgen deprivation (flutamide and LHRH) have been encouraging.<sup>18</sup> Flutamide blocks the translocation of androgen-receptor complex to the cell nucleus.<sup>19</sup> Since this unique action of flutamide is at the cytoplasmic level and involves DHT receptor complex, it does not interfere with libido or potency.<sup>20</sup> It has been used as a monotherapy both in Europe and in the United States.<sup>21</sup> Determination of the merit of using either monotherapy or combination therapy will have to await the results of ongoing trials. Flutamide monotherapy may provide a new approach in the treatment of the metastatic prostate disease in sexually active men.

## Conclusion

Nonhormonal chemotherapy of metastatic prostate cancer remains experimental. Single and multiple agents of most of the known chemotherapeutic drugs have been tested, all with unencouraging response.<sup>21</sup> However, one needs to keep in mind these agents are

used as a last resort in patients with markedly advanced tumors and who have had all forms of treatment including radiation therapy. The current surgical interest in this very common disease, coupled with the advent of new treatment modalities, should provide improved future prospects for patients with prostatic carcinoma. □

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# Diabetic Ketoacidosis at the Children's Hospital of Oklahoma: A Review on Presentation and Management

Piers R. Blackett, MD; Thomas Lera, Jr., MD; Adolfo Garnica, MD; G. Bradley Schaefer, MD; David Domek, MD; Michael Parker, MD

Examination of 394 cases of diabetic ketoacidosis presenting at the Children's Hospital of Oklahoma from 1975 to 1987 has indicated a higher frequency of very young patients with low insulin requirements and frequent presentation in the winter months. The severity of the preceding hyperglycemia varies widely as indicated by the range of glycosylated hemoglobin values at the time of diagnosis. In addition we have identified measures to prevent the main hazards occurring during therapy which are related to potassium replacement and correction of dehydration without causing cerebral edema. The general principles of management are reviewed and we have selected certain aspects for emphasis and discussion based on past experience.

The epidemiology of type I diabetes has been dramatically changing, explaining an increase in newly diagnosed cases in the United States and elsewhere.<sup>1,2</sup> In Britain the prevalence appears to be doubling every decade.<sup>1,3</sup> Our experience with diabetes presenting during infancy, childhood, and adolescence is similar to that previously recorded (Figs 1 and 2). Our higher frequency of very young patients may reflect referral bias attributable to the need for tertiary care and consultation for this age group. We have not seen a significant difference in frequency or age distribution due to sex as described previously.<sup>4</sup> The months of most frequent presentation were January, February, and March, and in some

years this followed an influenza outbreak. Although presentation was less frequent in the summer, significant peaks were observed in July and October. In our opinion this weak association with viral illness reflects decompensation in cases with low beta cell reserve following a long period of autoimmune islet cell damage.<sup>5</sup>

A recognizable sequence of clinical events correlates with underlying physiological processes and precedes the onset of severe acidosis and hyperglycemia. Polyuria, polydipsia, and polyphagia of a few days' or weeks' duration is induced by osmotic diuresis, and this triad of symptoms, along with recent weight loss, should strongly suggest diabetes mellitus until proven otherwise. Fortunately, with improved public knowledge about diabetes, the diagnosis is usually made before severe dehydration, shock, and coma ensue. Nevertheless, delays in diagnosis still occur when the signs and symptoms are mistakenly interpreted as indications of urinary tract infection or a respiratory condition without appropriate testing for diabetes.

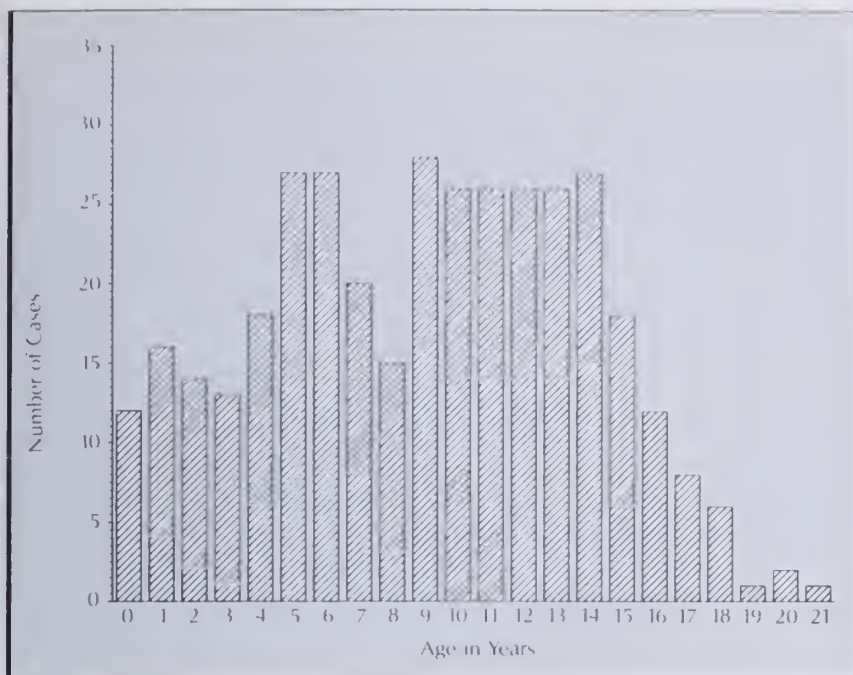
The severity of these events at the time of presentation determines the rate of correction of these clinical abnormalities. Each case requires individual assessment and therapeutic strategy. Varying severity of hyperglycemia precedes the onset of ketoacidosis, as indicated by our finding of a wide range of glycosylated hemoglobin results at the time of presentation (Fig 2).

The response to therapy varies with the age of the child, the duration of the diabetes, the degree of dehydration, and the associated stresses. These vari-

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**Figure 1.** Age of onset at the time of first presentation with ketoacidosis for children seen between 1975 and 1987 (n = 394).

ables must be recognized when estimating fluid requirements and selecting insulin doses. During the course of therapy serious dangers exist, especially in relation to potassium replacement and fluid shifts which might cause cerebral edema.<sup>6-8</sup> The correct handling of these situations, based on past experience, has been reviewed.<sup>9-15</sup> In this review we have selected certain aspects for emphasis and discussion, based on our own experience.

## Pathogenesis

**Insulin deficiency.** Insulin deficiency may occur in either undiagnosed or treated children with diabetes mellitus. In both cases, ketoacidosis may be the resulting metabolic derangement. With relative insulin insufficiency, the passage of glucose into cells is impaired, and the mobilization of free fatty acids from adipose tissue proceeds rapidly. This process is further enhanced by the lipolytic action of stress-induced release of glucagon, norepinephrine, corticosteroids, and growth hormone, which promote fatty acid mobilization and subsequent beta-oxidation in hepatic mitochondria to form ketone bodies. Glucagon plays a particularly significant role in the development of ketosis by enhancing beta-oxidation.<sup>16</sup> As a consequence, the major ketone bodies, acetoacetic acid, and beta-hydroxybutyric acid cause metabolic acidosis.

**"Rebound" or Somogyi phenomenon.** Stress hormones increase hepatic glucose production, which results in osmotic diuresis and consequent dehydration, along with ketone body formation. The osmotic diuresis, accompanied by tissue catabolism, then results in deficits in sodium, potassium, chloride, and phosphate.

Iatrogenic administration of excessive insulin may cause hypoglycemia which is followed by "rebound" hyperglycemia and ketosis.<sup>17</sup> This effect, known as the Somogyi phenomenon,<sup>17,18</sup> occurs in response to insulin-induced hypoglycemia, which is followed by a counterhormonal response with resultant enhancement of glycolysis and fatty acid mobilization. The hyperglycemia and ketosis is accentuated when the effect of the previous insulin dose wanes.<sup>19,20</sup> A second injection may avoid this waning effect and consequent proneness to fatty acid mobilization.

This offers an explanation for the susceptibility of poorly controlled subjects, such as those encountered by Somogyi,<sup>18</sup> to the effect of hypoglycemic-induced stress. In our experience the Somogyi phenomenon is more often observed in noncompliant patients with chronically unstable blood glucose control, for which excessive doses of insulin have been prescribed.

Lability of the counterhormones in poorly controlled diabetics has been illustrated by Tamborlane in a group of adolescents who were studied before and

after improved control using continuous subcutaneous insulin infusion.<sup>21</sup> Two weeks of improved control with the insulin pump resulted in a significant reduction in the counterhormonal responses to a standardized exercise test. This suggests that well-controlled diabetics are protected from stress-induced counterhormonal responses, whereas the poorly controlled "brittle" diabetics are not, explaining why poorly controlled patients are prone to characteristic rises in blood glucose following repeated rises in catecholamines. Furthermore, reductions in blood glucose from very high concentrations to values barely above 100 mg/dl may also cause counterhormonal responses,<sup>22</sup> indicating that relative rather than absolute hypoglycemia may be the trigger for the rebound phenomenon.

### Clinical Evaluation

In new onset diabetes the history and examination is essential to making a diagnosis. If the child presents with diabetes for the first time, polyuria and thirst may have been present for a few weeks. The associated weight loss is secondary to dehydration and tissue catabolism. Appetite is increased, causing polyphagia, the third component of the classical triad of polyuria, polydipsia, and polyphagia.

A family history of diabetes and other autoimmune diseases is supportive evidence. Although Type I diabetes does not follow a Mendelian pattern of inheritance, the incidence ranges from 2% to 6% in first-degree relatives,<sup>23</sup> and the predictability is increased by histocompatibility antigen typing and detection of islet cell antibodies.<sup>24</sup>

In cases with known diabetes, the diagnosis is more obvious. The previously diagnosed child with diabetes mellitus will frequently be wearing a medical identification necklace or bracelet (for example, by Medicalert) which indicates the diagnosis. This is important time-saving information when the parents are not available. Alternatively, a history from a parent will often suggest the diagnosis.

An attempt should be made to identify the precipitating circumstances primarily responsible for the development of the ketoacidosis, such as (1) a missed insulin dose, (2) progressive deterioration in control associated with a decline in compliance with the usual management routine, (3) chronic overinsulinization, (4) psychosocial stress, (5) drugs and alcohol, (6) infections or a second illness, and (7) trauma.

### Signs & Symptoms

Drowsiness and coma, characteristic of a hyperosmo-

lar state, result from shrinkage of the brain. The resulting gradient results in a reversal of the fluid shift from the vascular space into interstitial and intracellular spaces.

In severe ketoacidosis, there is always an associated dehydration manifested by sunken eyes, dry mouth, and decreased tissue turgor. A recent weight, if taken under conditions of good control, will aid in estimating the percentage of dehydration, which is at least 10%, bearing in mind that tissue catabolism contributes to the weight loss. Characteristic rapid, deep breathing (Kussmaul respiration) is a feature of acidosis, and the sweet odor of acetone may frequently be detected on the child's breath. In many cases, abdominal pain, which is attributed to stress-induced gastrointestinal spasm, occurs and is often associated with vomiting. The pain usually subsides with treatment; however, tenderness and, occasionally, guarding may be present. Severe and prolonged ketosis predisposes to infection because of disturbed polymorphonuclear phagocytosis; thus a blood culture, urine culture, and chest x-ray should be considered, particularly in new cases. Other laboratory findings include a characteristic leukocytosis due to stress and splenic contraction, and hemoconcentration with an increased BUN occurs secondary to the osmotic diuresis.

### Comparison With Hypoglycemia

The unconscious, insulin-treated child may have hypoglycemia, a condition which may be rapidly diagnosed using a glucose meter. The clinical history is of shorter duration than in diabetic ketoacidosis, and there is no dehydration or Kussmaul breathing. Hypothermia may be striking, and seizures are prone to occur.

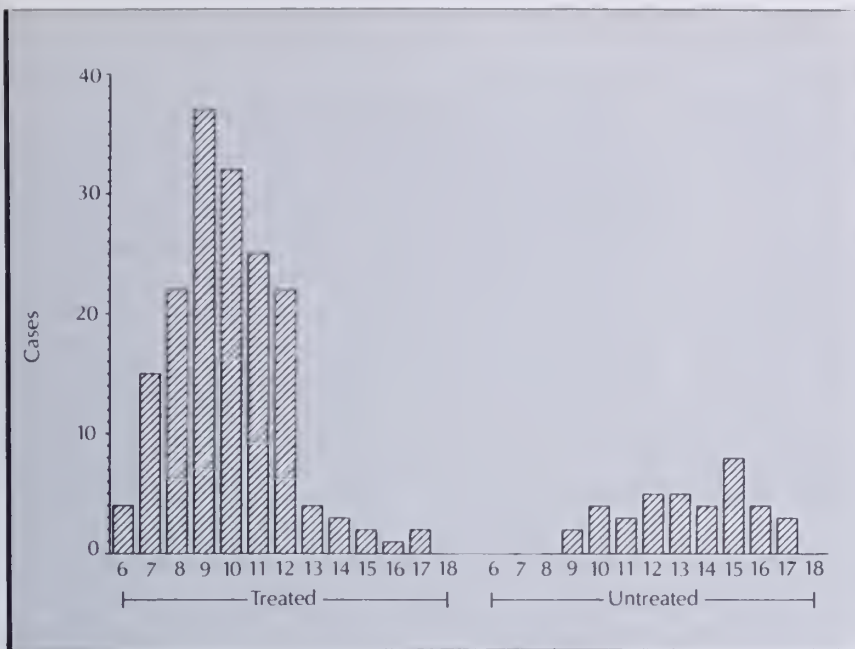
Intravenous dextrose, 1 ml per kilogram of 50% dextrose or 2-4 ml per kilogram of 25% dextrose may be given intravenously for acute hypoglycemia. Alternatively, glucagon 1 mg intramuscularly may be given in an emergency situation in the absence of available personnel trained to give an intravenous dextrose infusion. If the index of suspicion for hypoglycemia is high, dextrose or glucagon may be given after a blood sample for glucose is obtained.

### Treatment

Initially, establishing a good airway with adequate ventilation and stabilizing the hemodynamics are priorities. The aspiration of vomitus may be avoided by inserting a nasogastric tube.

Laboratory results should be charted on a flow-





**Figure 2.** Distribution of glycosylated hemoglobin (%HbA1c by ion exchange column, Isolab) for cases seen at clinic visits during 1987 (n = 171, median = 10.2) compared to values at presentation with ketoacidosis during a three-year period (n = 38, median = 13.9).

sheet to aid rapid assessment of progress. A blood sample is taken for glucose, electrolytes, venous pH, bicarbonate, serum acetone, phosphate and ionized calcium, and a complete blood count. A drop of venous blood sample is placed on a reagent strip for an immediate reading with a glucose meter to provide early information. The glucose concentration fails to correlate with the severity of the acidosis<sup>25</sup> and may range from over 1000 mg/dl to under 300 mg/dl, reflecting the contribution of hepatic glucose production.<sup>26</sup> A glycosylated hemoglobin result at the onset provides information as to the long-term glucose control. Transient, stress-induced hyperglycemia is associated with a normal glycosylated hemoglobin, whereas diabetic patients have higher results, indicative of chronic hyperglycemia, particularly when first diagnosed (Fig 2).

Hyponatremia is common, often due to dilution of the intravascular space with body water drawn from the interstitial and cellular spaces by osmotic attraction. Urine sodium loss as ketoacid salts contributes to hyponatremia. In a few cases, bicarbonate loss leads to hyperchloremia, which requires correction.<sup>27</sup> Rarely, adrenal insufficiency may cause extreme hyponatremia associated with hypotension, increased sensitivity to insulin, and hyperpigmentation.

With methods for measuring the sodium concen-

tration, a factitious lowering of all the serum values, including sodium, occurs in patients with hypertriglyceridemia as a consequence of the displacement of the aqueous phase with lipid. In this situation, the aqueous infranate should be measured after ultracentrifugation<sup>28</sup> which can be conveniently done using a tabletop ultracentrifuge (Airfuge, Beckman Co.). An alternative method is to extract the lipid with a solvent prior to serum analysis.

When the osmotic diuresis continues until water losses are maximal, the serum sodium increases in association with hemoconcentration. When this occurs, the reserves of body water from the interstitial and intracellular spaces (3rd space) have become depleted to the point that further passage of water into the intravascular space is markedly reduced. This situation is usually associated with severe acidosis and impending shock.

Potassium concentration levels may be increased, normal, or rarely decreased<sup>6</sup> at the onset of ketoacidosis, depending on factors such as tissue catabolism, acidosis, tissue uptake, and renal excretion. An increased aldosterone secretion in response to hypovolemia may contribute to lowering the serum potassium concentration.

Low arterial or venous pH and decreased plasma bicarbonate are typical findings in ketoacidosis and reflect a metabolic acidosis with an increased anion

gap due to increased endogenous acid production in the form of ketones along with a small amount of lactic acid.

### Intravenous Fluids and Electrolytes

It is usual to begin immediate treatment of dehydration with normal saline to expand the intravascular volume and to increase peripheral flow and replace sodium loss due to the osmotic diuresis. The infusion rate should be 10 ml per kilogram or more for the first hour. Half the estimated initial deficit, in addition to maintenance requirements, should be given during the first eight to twelve hours. The remaining deficit, plus maintenance requirements, is given in the subsequent 16 to 24 hours, or over a longer period if necessary, depending on the clinical state of hydration. Conventional calculation of the maintenance fluids will suffice, provided the blood glucose is not in excess of the renal threshold for longer than 3 hours. If excessive and prolonged hyperglycemia is present, maintenance fluid requirements may be calculated as the sum of the ongoing losses in the urine and the insensible water loss. Fluid balance, as indicated by the difference in fluid intake and output, should be retrospectively assessed at least every 4 hours, and appropriate adjustments should be made to the infusion rate.

Volume loading with large amounts of crystalloid solution<sup>29</sup> results in a hyperoncotic load that may contribute to the development of subclinical or overt cerebral edema.<sup>30,31</sup> Rapid glucose lowering ( $>90\text{mg/dl/hr}$ ) with associated loss of osmoles from the vascular space or infusion of hypotonic solutions also may be contributory; however, an etiologic role for the rate of blood glucose correction or the speed of hydration has been controversial,<sup>32,33</sup> indicating the existence of unknown factors.

### Insulin

In order to reduce hyperglycemia and to re-establish the antilipolytic and antiketogenic effect of insulin, it is necessary to maintain consistent insulinization. To achieve this goal, the most effective regime has been found to be continuous intravenous infusion of low dose regular human insulin.<sup>34,35</sup> This route is preferable because complete absorption of subcutaneous insulin may not occur until rehydration is underway. The dose administered should achieve serum insulin levels within a therapeutic range (20 to 200 micro-units per milliliter) so that there will be sufficient circulating insulin to saturate cellular receptor sites and achieve the necessary metabolic effects.

Efficacy and convenience support the use of insulin infusion of low dose if certain biochemical criteria of severity are met, such as a blood glucose greater than 300 mg/dl or venous pH less than 7.3, with a bicarbonate less than 15 mEq/l. Under these conditions, the serum acetone is usually positive in a 1:2 dilution or more. Usually, an initial dose of 0.1 units of insulin per kilogram is given as an intravenous bolus, followed by an infusion dose of 0.1 units per kilogram per hour. The latter is administered by diluting the insulin with normal saline to a concentration of 0.5 units of regular insulin per milliliter. The insulin is conveniently mixed in a 250 ml bag of normal saline by adding 125 units of regular human insulin. This should be checked by a colleague or team member. The insulin should be remixed every 12 hours. The insulin is then infused via a Y connection, the other arm of the Y being connected to the replacement fluids. The drip rates of the infusions are monitored mechanically. Before running the insulin infusion, about the first 10 units (20 ml) is discarded, allowing the insulin to saturate the plastic tubing and avoiding an initial insulin deficit due to its binding to the plastic.

In exceptional patients with extreme salt and water depletion associated with hypovolemia, the intravascular volume is partially maintained by a high blood glucose concentration, which osmotically draws fluid from intracellular and interstitial spaces. A decrease in blood glucose under these circumstances might precipitate severe shock. It is advisable, therefore, to withhold the insulin for 15 to 30 minutes or to administer a sufficiently low dose to inhibit ketogenesis without significantly decreasing the blood glucose.<sup>36</sup> Cases presenting initially with hypotension should be treated with colloid infusion in the form of a plasmanate or human albumin infusion (20 ml/kg) over 20 minutes. Central venous pressure monitoring is indicated to ensure that the pressure can be increased above 5 mm Hg by the colloid infusion.

In the usual case, the decrease in blood sugar over the first few hours is predictable and should occur at a rate of 60 to 90 mg/dl each hour. The infusion rate of insulin may be increased or decreased according to the rate of glucose decline. Usually infants and children below age 5 years are very sensitive to insulin and require a half or quarter of the usual 0.1 unit/kg/hour infusion dose. To prevent an excessive decrease in blood glucose, 5% dextrose is added to the infusion solution when the blood glucose decreases to below 250 mg/dl.



Circulating insulin levels are maintained by continuing the insulin infusion until the pH is above 7.3. The continuation of the insulin infusion will facilitate the correction of the acidosis, which often lags behind changes in blood glucose. A subcutaneous injection of intermediate-acting insulin should be given at least an hour before discontinuing the insulin infusion. This avoids a potential gap in insulin supply and prevents counterhormone-induced lipolysis and ketosis.

## Potassium

In the insulin-deficient state, progressive intracellular depletion of potassium is associated with the period of protein, glycogen, and fat catabolism during the days or weeks prior to the onset of ketoacidosis. A total body potassium deficit exists even though normal or high serum concentrations are recorded. After insulin treatment, a fall in the serum level is inevitable, concurrent with the intracellular diffusion of glucose and correction of the acidosis. Therefore, if potassium is not replaced early, cardiac function will be endangered. Good peripheral perfusion is essential prior to the infusion of potassium because the administration of potassium to a shocked and dehydrated patient with low urine output could induce dangerous hyperkalemia.

Potassium should be infused shortly after the intravenous insulin infusion is started because of the immediate action of insulin and/or bicarbonate therapy on the intracellular passage of potassium, which could lead to cardiac arrest when serum potassium reserves are inadequate.

A dose of 30 to 40 mEq of potassium is added to each liter of the intravenous solution. Larger doses may be necessary in the treatment of severely acidotic and potassium-depleted patients. It is recommended that the potassium be given as a mixture of buffered potassium phosphate and potassium chloride. The potassium deficit is calculated as 5 mEq/kg and phosphate deficit as 3 mEq/kg. Replacement of the phosphate deficit improves oxygen delivery to tissues by repleting red blood cell 2, 3-diphosphoglycerate so that impairment in brain and myocardial oxygenation is prevented.<sup>37</sup> Determination of an initial ionized calcium is also advisable, since too much phosphate may precipitate with calcium and decrease the serum calcium level.

When in doubt about serum potassium, immediate information may be obtained by an EKG. If hypokalemia is present, prolongation of the QT interval with wide low amplitude T waves will be seen.

## Bicarbonate

A major concern is whether to treat the acidosis with bicarbonate.<sup>27,38-40</sup> It has been observed that the addition of bicarbonate to patients with severe ketoacidosis does not affect recovery.<sup>39</sup> The consensus is to use bicarbonate sparingly because of possible unfavorable effects when bicarbonate is used in excess.<sup>38</sup> Theoretical reasoning, based on limited experimental evidence,<sup>40</sup> is that bicarbonate is converted to carbon dioxide, which crosses the blood brain barrier and causes intracerebral acidosis due to the formation of carbonic acid. This would be undesirable if the level of consciousness is already impaired; however, specific advantages of bicarbonate use must be weighed against possible disadvantages such as promotion of intracerebral acidosis; alkalosis and shifting the oxygen dissociation curve to the left, resulting in decreased oxygen delivery to tissue; and accelerating the entry of potassium into the intracellular space, resulting in hypokalemia.

It is known that depressive effects of acidosis on the respiratory minute volume and myocardial contractility occur below a blood pH of 7.1.<sup>41,42</sup> Thus, when the pH is less than 7.1 or when the bicarbonate is below 10 mEq/l, we recommend the administration of bicarbonate to preserve optimal cardiac function. The bicarbonate dose is calculated to attain partial correction to an actual concentration of 15 mEq/l. This is done by using a formula that is based on calculating the amount of bicarbonate needed to diffuse throughout the extracellular space. The formula is as follows:

Correction dose (mEq) = body weight (kg)  $\times$  0.6  $\times$  15-bicarbonate (mEq)

Alternatively, a dose calculated as 2 mEq/kg is a conservative estimate. The bicarbonate should not be given as a bolus that represents a significantly high osmolar load, and the concentration should not exceed 80 mEq/l. Therefore, giving half the calculated amount by slow intravenous infusion over 30 minutes and the remainder over 4 to 6 hours is appropriate. When the pH exceeds 7.25, additional bicarbonate is no longer necessary.

Conversion of ketoacid salts to bicarbonate, a process enhanced by insulin administration, contributes to the correction and further supports the argument for calculating only partial correction of the bicarbonate deficit. However, some allowance should be made for patients with hyperchloremic acidosis who tend to recover more slowly although they have less of an anion gap.<sup>27</sup>

It should be remembered that testing for ketones with nitroprusside reagents (strips or tablets) may be

misleading because most of the ketones initially will be in the form of beta-hydroxybutyric acid, which does not react with nitroprusside, whereas acetoacetic acid will. During effective therapy, beta-hydroxybutyric acid will be converted to acetoacetic acid. Thus, the ketones may appear to increase during the recovery period when tested with these reagents, although the level of beta-hydroxybutyric acid decreases substantially.

### Convalescent Phase

To prevent aspiration of gastric contents in the event of vomiting, there should be no ingestion of food or fluids during severe acidosis. Appetite usually returns when the acidosis is corrected, and a normal diet can be gradually introduced. When the electrolytes are normal and when the serum pH is above 7.3, it is safe to allow the child a liquid diet, with the provision that hypotonic fluids (which could precipitate cerebral edema) are avoided. Careful recording of fluid intake and output should continue until complete correction is attained, usually within a 48-hour period.

It is good practice to commence with a dose of subcutaneous insulin the morning following initial intravenous therapy, or at another convenient starting point. Estimation of the dose is a question of judgment that is made based on the response to insulin observed during correction, previous insulin dosages in diagnosed cases, and age. Infants and young children are insulin-sensitive and may require no more than 0.25 units/kg/day given as a single daily dose of intermediate-acting insulin. Older children and adolescents require a total dose of 0.5 to 1.5 units/kg/day given as combined doses of intermediate- and short-acting insulins before breakfast and supper.

During the ensuing months, the newly diagnosed case may transiently require less insulin, after which a decline in endogenous insulin reserves leads to increased dose requirements. Somatic growth, increases in counterhormonal responses, and stresses of adolescence may contribute to an increased insulin demand. Excessive insulin may lead to repeated hypoglycemia associated with a corresponding counterhormonal response, a situation leading to continuous fluctuations in blood glucose and a predisposition to ketoacidosis, as discussed previously.

In order to determine an approximate dose requirement, most children will need a short period of in-hospital adjustment during which blood sugars are monitored under conditions that simulate the home environment with respect to diet and activity.

The initial period after diagnosis is an important phase of therapy that involves education and encouragement of both parents and child, with consideration of factors such as age, level of education, maturity, and acceptance of diabetes.

Ultimate success will depend on good communication with a health care team consisting of a physician, diabetes nurse educator, and a dietitian, with additional availability of social workers and psychologists. Following discharge, good telephone contact should be ensured so that decisions on dose, diet, and activity changes can be discussed between clinic visits. If possible, other members of the family should be progressively involved in the education process so that a strong support system is developed between the patient and family, with sufficient confidence to manage the diabetes during future years. □

### Acknowledgments

Faculty, fellows, and house-staff in the Department of Pediatrics, University of Oklahoma Health Sciences Center, at the Children's Hospital of Oklahoma contributed greatly to the management of diabetic ketoacidosis during the past decade.

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## Coming next month

January will feature the next biography in the JOURNAL's Leaders in Medicine series. Also being prepared for publication are papers on brachial plexus neuropathy and cocaine metabolites in pre-Columbian mummy hair, as well as a report on how physicians can help recruit nurses.

## Medical Student Career Choices —

### The University of Oklahoma College of Medicine Experience, 1981-1990

R. Timothy Coussons, MD; F. Daniel Duffy, MD

This is the second of several articles dealing with medical education and recruitment in Oklahoma and generated at the request of the OSMA-OUHSC Liaison Committee. The articles were sought out and submitted with the assistance of Edward N. Brandt, Jr., MD, PhD, executive dean of the University of Oklahoma College of Medicine.

The dramatic and significant changes occurring in the practice of medicine in the United States during the last decade have prompted efforts to predict the number of physicians that will be required in various medical specialties to meet the nation's changing health needs. This paper reports initial career choices of graduating senior medical students at the University of Oklahoma College of Medicine during the last 10 years, comparing those choices to those made by students nationwide. Several factors that may influence medical student career choices are also discussed.

Table 1 summarizes the career choices of graduating senior medical students from the University of Oklahoma College of Medicine, Oklahoma City and Tulsa campuses, for the years 1981 through 1990. Table 2 displays comparable career choices for all graduating seniors from US medical schools for the same period. Both the number and the percentage of students in each class selecting various subspecialties are listed. Since medical student class size has fallen at our school during the decade of the eighties

(as it has in many US schools), examining the percentage of students selecting a given discipline permits year-to-year comparisons. The National Resident Matching Plan, which began in the early 1950s, has developed into a sophisticated computerized mechanism that allows medical students to apply to a large number and wide range of residency programs and is utilized by over 99% of graduating senior medical students. The career choices listed represent the first postgraduate year (PGY1) experience chosen at the time of graduation, and some portion of the choices in internal medicine, general surgery, and transitional may be a "preliminary year" required for entry into a medical or surgical specialty. The transitional program is an outgrowth of the previous rotating internship and is a pathway to a range of career choices including surgical and medical specialties.

Since disciplines such as emergency medicine have only recently begun to accept graduating senior students into their specialty training program, comparative data may be limited to a few years in these areas. Of 97 medical students on the Oklahoma City campus participating in the recently completed 1990 match, over 80% received their first or second career choice. Fifty-six percent of these students chose to remain in Oklahoma for their residency training period. This compares favorably with data that demonstrate that for the 1970-1979 period, approximately 56% of our graduates eventually practice within the state of Oklahoma, ranking us 26th among 112 medical schools regarding percent of graduates practicing within the state.

(continued)

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**Table 1. University of Oklahoma College of Medicine Graduating Seniors Matched to PGY1 by Specialty 1981-1990**  
(Oklahoma City and Tulsa Campuses)

	1981		1982		1983		1984		1985		1986		1987		1988		1989		1990	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Family Medicine	21	12	28	17	24	15	41	24	29	17	25	15	33	21	18	11	7	5	6	4
Internal Medicine	42	25	54	33	34	21	41	24	53	31	44	27	39	25	45	28	33	24	40	29
Pediatrics	15	9	9	5	8	5	17	10	19	11	14	9	8	5	12	7	8	6	10	7
Obstetrics/Gynecology	8	5	6	4	12	7	5	3	6	4	11	7	11	7	8	5	6	4	9	7
Medicine/Pediatrics	0	0	0	0	0	0	0	0	1	1	2	1	1	1	0	0	6	4	4	3
Psychiatry	9	5	7	4	14	9	10	6	13	8	10	6	15	10	12	7	15	11	10	7
Neurology	2	1	1	1	2	1	1	1	3	2	2	1	1	1	3	2	1	1	0	0
Ophthalmology	1	1	2	1	3	2	6	3	0	0	0	0	0	0	2	1	4	3	0	0
Surgery	18	11	18	11	21	13	13	7	14	8	13	8	9	6	27	17	18	13	18	13
Neurosurgery	1	1	0	0	2	1	0	0	1	1	0	0	1	1	0	0	1	1	0	0
Orthopaedic Surgery	3	2	3	2	7	4	6	3	6	4	6	4	4	3	2	1	8	6	3	2
Otorhinolaryngology	2	1	3	2	2	1	3	2	2	1	3	2	2	1	0	0	1	1	1	1
Urology	1	1	4	2	5	3	4	2	4	2	3	2	2	1	3	2	2	1	2	1
Anesthesiology	10	6	11	7	16	10	10	6	6	4	9	6	9	6	11	7	15	11	15	11
Emergency Medicine	0	0	0	0	0	0	0	0	0	0	0	0	2	1	2	1	2	1	5	4
Pathology	3	2	0	0	6	4	2	1	2	1	4	2	1	1	0	0	1	1	0	0
Physical Medicine	0	0	0	0	0	0	0	0	0	0	1	1	1	1	2	1	3	2	0	0
Radiology	7	4	9	5	3	2	6	3	6	4	5	3	7	4	6	4	3	2	5	4
Transitional	27	16	10	6	4	2	9	5	6	4	9	6	10	6	8	5	5	4	8	6
TOTAL	170	102	165	100	163	100	174	100	171	103	161	100	156	101	161	99	139	101	136	99

Source: OUHSC 5/90

**Table 2. US Graduates Matched to PGY1 by Specialty 1981 Through 1990**

	1981		1982		1983		1984		1985		1986		1987		1988		1989		1990	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
FAMPRC	1727	13.6	1757	13.5	1681	13.1	1773	13.0	1626	11.8	1680	12.2	1728	12.7	1494	11.1	1468	11.1	1418	10.9
INT MD	4327	34.0	4484	34.4	4511	35.0	4779	35.2	4997	36.3	4994	36.3	4781	35.2	4846	35.9	4744	35.9	4569	35.2
PEDIAT	1241	9.8	1203	9.2	1182	9.2	1271	9.4	1287	9.4	1366	9.9	1366	10.0	1313	9.7	1256	9.5	1286	9.9
OB/GYN	810	6.4	841	6.5	807	6.3	844	6.2	828	6.0	866	6.3	828	6.1	903	6.7	883	6.7	925	7.1
PSYCH	489	3.8	541	4.2	496	3.9	497	3.7	600	4.4	651	4.7	675	5.0	745	5.5	722	5.5	644	5.1
MEDSPC	44	0.3	50	0.4	57	0.4	56	0.4	63	0.5	44	0.3	50	0.4	48	0.4	45	0.3	38	0.3
DERMAT	6		6		6		5		5		5		6		6		9		15	
NEUROL	24		30		34		30		35		22		30		24		22		15	
OPHTHM	14		14		17		21		23		17		14		18		14		8	
GEN SG	1769	13.9	1777	13.6	1711	13.3	1831	13.5	1862	13.5	1796	13.1	1703	12.5	1647	12.2	1532	11.6	1501	11.6
SURGSP	356	2.8	490	3.8	485	3.8	470	3.5	461	3.4	450	3.3	469	3.4	538	4.0	547	4.1	539	4.2
NEURSG	34		37		40		25		29		27		27		24		23		25	
ORTHOP	237		287		291		294		287		307		335		402		415		400	
OTOLAR	39		87		72		43		39		39		34		42		40		42	
UROLOG	46		75		80		103		100		71		66		64		63		65	
PLSTSG			4		2		5		6		6		7		6		6		7	
SUPPSP	878	6.9	881	6.8	1085	8.4	1151	8.5	1057	7.7	1007	7.3	1022	7.5	1017	7.5	1108	8.4	1172	9.0
ANESTH	291		343		332		368		339		268		249		219		200		251	
EMERMD					168		189		221		242		264		278		297		337	
PATHOL	244		236		265		263		190		197		209		184		253		243	
PHYSMD	37		36		56		65		62		63		66		73		84		71	
PREVMD	0		0		0		0		3		1		2		4		2		5	
DX RAD	291		251		250		252		219		223		221		252		262		258	
RX RAD	15		15		14		13		23		13		11		7		9		5	
NUCMED					1		1		0		0		0		0		1		2	
TRANS	1083	8.5	999	7.7	859	6.7	916	6.7	972	7.1	902	6.6	974	7.2	945	7.0	910	6.9	864	6.7
TOTAL	12724	100	13023	100	12874	100	13588	100	13753	100.0	13753	100.0	13596	100.0	13496	100.0	13215	100.0	12976	100.0

Source: NRMP 4/90

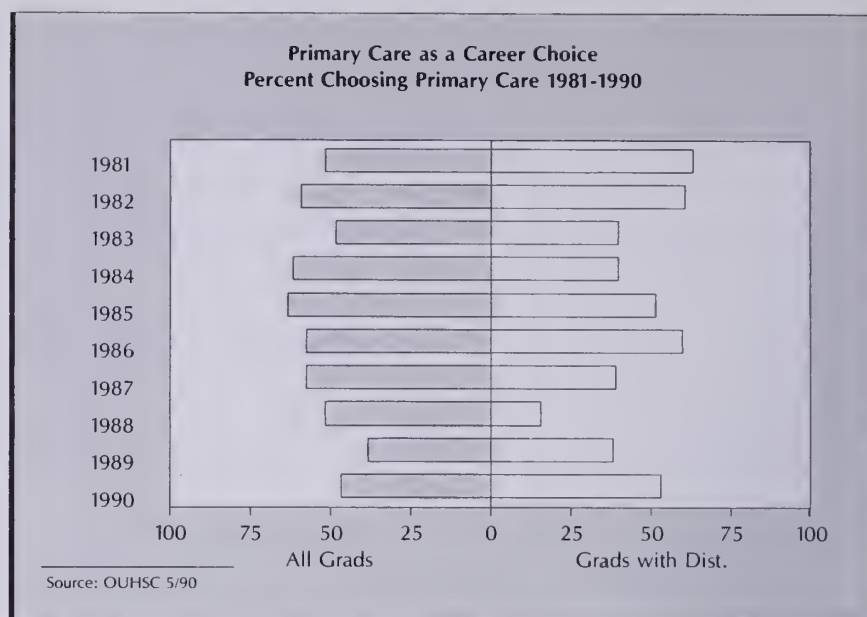


Figure 1.

There has been much concern on the national scene regarding the numbers and quality of individuals selecting primary care (family medicine, internal medicine, pediatrics, and ob-gyn) over the last several years.<sup>1,2,3</sup> Figure 1 demonstrates the number and percentage of all of our graduates compared to our graduates with distinction who select primary care, the latter group representing generally 10% to 15% of a given graduating class in recognition of their outstanding academic achievement during four years of medical school. A downward trend in the selection of primary care careers appears among all of our graduates, although no dramatic reduction is evident through the past decade. In the years 1983, 1984, 1985, 1987, and 1988, those graduating "with distinction" selected primary care as a career choice by a significantly reduced percentage when compared to all students. For the decade, the average of all graduates selecting primary care was 53.5%, as contrasted to 43.7% for graduates "with distinction." Students graduating with honors or distinction at most medical schools are likely to have a wider choice of career options and seem to be seeking careers other than primary care, with a notable shift away from internal medicine.<sup>4</sup>

Another interesting aspect of the career choice equation is the comparison of the number of training program positions offered with those filled by applicants. Table 3 shows for the years 1984 through 1990 the number of positions offered by various training programs within the US and the percent filled by US graduating seniors (% US) as well as total applicants

(includes US students who have graduated in previous years and are redirecting their careers, Canadian graduates, osteopathic physicians, and foreign medical graduates). The listings for family medicine, internal medicine, and pediatrics, which represent the bulk of primary care, show a significant decline in the percent of positions filled by US seniors. Analysis of these data is complicated by the fact that the number of positions in a given discipline varies from year to year, with a general overall increase particularly in internal medicine. This increase in number of positions offered has generally reflected the needs of large metropolitan hospitals to meet patient care obligations rather than expanded educational objectives. The number of PGY1 positions in Oklahoma over the decade has changed very little and for internal medicine was steady at 40. Figure 2 shows for 1990 the percentage of positions filled by graduating US seniors and all other applicants in family medicine, internal medicine, pediatrics, ob-gyn, psychiatry, general surgery, orthopedic surgery, anesthesia, emergency medicine, pathology, radiology, and transitional programs. Over 90% of the available positions were filled in ob-gyn, orthopedic surgery, emergency medicine, and diagnostic radiology.

Figure 3 shows the percentage of US students in 1990 who listed choices for programs of only one specialty and went unmatched. Orthopedic surgery, obstetrics, and gynecology, general surgery, and diagnostic radiology all show a high percentage of unmatched US students, reflecting their desirability as specialty choices among recent graduates. The pri-



Table 3. PGY1 Positions Offered and Filled in the Match by US Graduates and Total Applicants From 1984 Through 1990

	1984			1985			1986			1987			1988			1989			1990		
	Positions		Offrd	Positions		Offrd	Positions		Offrd	Positions		Offrd	Positions		Offrd	Positions		Offrd	Positions		Offrd
	Offrd	Filled		Offrd	Filled		Offrd	Filled		Offrd	Filled		Offrd	Filled		Offrd	Filled		Offrd	Filled	
	% US	% Tot		% US	% Tot		% US	% Tot		% US	% Tot		% US	% Tot		% US	% Tot		% US	% Tot	
Family																					
Practice	2359	75.2	85.2	2372	68.5	80.0	2390	70.3	82.0	2395	72.2	82.6	2412	61.9	73.3	2456	59.8	71.1	2393	59.3	70.4
Internal																					
Medicine	6579	72.6	87.7	6736	74.2	90.5	6912	72.3	86.6	7076	67.6	82.3	7272	66.6	83.3	7467	63.5	80.4	7442	61.4	79.4
Pediatrics	1915	66.4	87.9	1899	67.8	89.0	1944	70.3	88.6	2009	68.0	86.1	2036	64.5	81.5	2068	60.7	80.0	2052	62.7	81.3
Obstetrics/Gyn	1014	83.2	96.5	1021	81.1	94.9	1048	82.6	92.9	1031	80.3	89.9	1043	86.6	94.1	1061	83.2	94.9	1076	86.0	97.0
Psychiatry	879	56.5	75.2	902	66.5	81.9	932	69.8	83.9	987	68.4	83.6	1097	67.9	85.0	1095	65.9	81.9	1135	58.5	76.0
Medical																					
Specialty*	90	62.2	71.1	91	69.2	73.6	80	55.0	65.0	73	68.5	80.8	69	69.6	84.1	72	62.5	73.6	81	46.9	65.4
Dermatology	6	83.3	83.3	5	100.0	100.0	9	55.6	55.6	7	85.7	85.7	7	85.7	100.0	9	100.0	100.0	15	100.0	100.0
Neurology	59	50.8	61.0	59	59.3	62.7	50	44.0	58.0	47	63.8	78.7	42	57.1	76.2	44	50.0	65.9	51	29.4	54.9
Ophthalmology	25	84.0	92.0	27	85.2	92.6	21	81.0	85.7	19	73.7	84.2	20	90.0	95.0	19	73.7	78.9	15	53.3	66.7
General																					
Surgery	2330	78.6	89.9	2310	80.6	88.9	2322	77.3	85.9	2282	74.6	83.1	2270	72.6	80.8	2218	69.1	77.7	2255	66.6	75.7
Surgical																					
Specialty*	532	88.3	96.1	530	87.0	96.0	504	89.3	98.0	537	87.3	97.0	601	89.5	96.3	632	86.6	94.8	633	85.2	95.6
Neurosurgery	35	71.4	77.1	35	82.9	88.6	31	87.1	93.5	32	84.4	87.5	30	80.0	80.0	33	69.7	81.8	38	65.8	73.7
Orthopedic Surg	334	88.0	97.3	329	87.2	98.8	342	89.8	100.0	384	87.2	97.9	439	91.6	99.8	462	89.8	98.9	456	87.7	99.3
Otolaryngology	47	91.5	95.7	46	84.8	87.0	42	92.9	95.2	40	85.0	97.5	49	85.7	87.8	50	80.0	84.0	52	80.8	90.4
Urology	111	92.8	98.2	112	89.3	95.5	83	85.5	92.8	74	89.2	95.9	77	83.1	88.3	79	79.7	82.3	79	82.3	87.3
Plastic Surgery	5	100.0	100.0	8	75.0	75.0	6	100.0	100.0	7	100.0	100.0	6	100.0	100.0	8	75.0	100.0	8	87.5	100.0
Support																					
Specialty*	1546	74.5	82.8	1468	72.0	81.7	1449	69.5	79.4	1447	70.6	80.4	1449	70.2	83.0	1598	69.3	82.2	1706	68.7	81.8
Anesthesiology	427	86.2	90.4	375	90.4	93.1	330	81.2	84.8	323	77.1	81.1	270	81.1	87.0	293	68.3	73.0	321	78.2	82.2
Emergency Med	209	90.4	98.1	234	94.4	99.1	270	89.6	98.5	298	88.6	100.0	326	85.3	99.1	376	79.0	94.4	440	76.6	93.2
Pathology	479	54.9	68.7	468	40.6	60.0	477	41.3	57.9	471	44.4	58.6	443	41.5	56.9	475	53.3	64.2	486	50.0	60.1
Physical Med	105	61.9	70.5	87	71.3	83.9	78	80.8	87.2	76	86.8	94.7	78	93.6	97.4	89	94.4	96.6	95	74.7	82.1
Preventive Med	2	0.0	0.0	6	50.0	50.0	8	12.5	62.5	8	25.0	50.0	7	57.1	71.4	10	20.0	20.0	15	33.3	40.0
Diagnostic Rad	291	86.6	93.1	263	83.3	89.7	265	84.2	90.9	258	85.7	92.6	313	80.5	96.8	344	76.2	99.1	337	76.6	99.7
Therapeutic Rad	30	43.3	46.7	33	69.7	75.8	21	61.9	66.7	13	84.6	92.3	9	77.8	77.8	10	90.0	90.0	6	83.3	83.3
Nuclear Med	3	33.3	33.3	2	0.0	0.0	0	0.0	0.0	0	0.0	0.0	3	0.0	33.3	1	100.0	100.0	6	33.3	66.7
Transitional	1213	75.5	87.5	1206	80.6	90.0	1189	75.9	86.0	1210	80.5	89.8	1264	74.8	82.8	1288	70.7	79.3	1328	65.1	74.1
Total	18457	73.6	87.3	18535	74.2	88.0	18770	73.3	86.0	19047	71.4	84.1	19513	69.2	82.6	19955	66.2	80.2	20101	64.6	79.2

\*Advanced specialties with a limited number of PGY1 positions.

(Percents may not add to 100 due to rounding)

Source: NRMP 4/90

mary care disciplines of family practice, internal medicine, and pediatrics show a much smaller percentage of unmatched students, reflecting their less competitive status among US graduates.

This reduction of interest in primary care disciplines in the face of a recognized societal need for primary care physicians, particularly in rural areas, has attracted considerable attention and analysis. The changes within American culture and the practice of medicine in the last decade, including the erosion of private practice opportunities, the malpractice crisis, the reduction in physician prestige, and the uncer-

tainty of future financial remuneration, have all been considered as explanations. Schwartz and others distributed questionnaires to 346 graduates of 9 medical schools in 1988.<sup>5</sup> Students were asked to rank the importance of various influences on their specialty selection. Analysis of data suggested three general groups of importance, including the life-style factor (personal time, prestige, control of practice, and remuneration), the cerebral and practice activities factor (clinical faculty role models, academic medicine orientation, and interest in large urban practice), and the altruism factor (including commu-

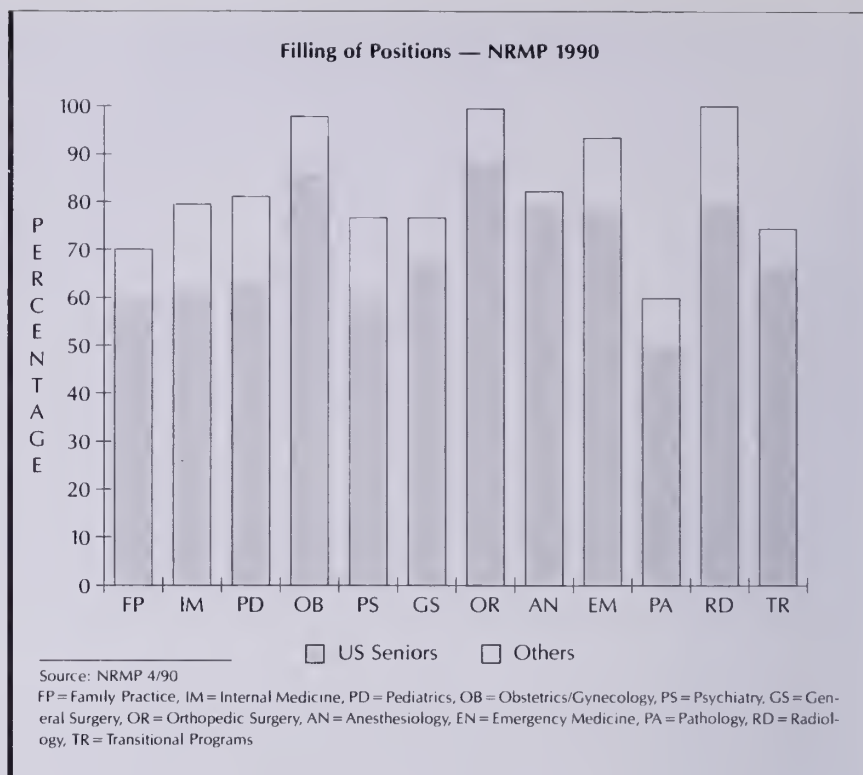


Figure 2.

nity service orientation, types of patients to be cared for, and practice in a rural area). The authors chose to group the specialties into those with a noncontrollable life-style (NCL) (surgery, medicine, family practice, pediatrics, and ob-gyn) and those with a controllable life-style (CL) (anesthesiology, dermatology, emergency medicine, ophthalmology, otorhinolaryngology, pathology, psychiatry, and neurology). The data suggest an increase in competitiveness among academically capable students for the limited number of CL residency positions and less competition for non-CL specialties.

Strategies to renew and reinforce interest in primary care either focus on the characteristics of medical students most likely to enter primary care or address issues of the medical student curriculum and the educational experience that might favorably influence them. Typical of the first category would be the study by Montaro, in which the attitudes of the University of Washington medical students interested in family practice as a career were compared to classmates that chose another discipline.<sup>2</sup> Medical students in both categories had a nearly identical perception of a career in family practice, whether they chose it as a career or not. The students that chose family practice, however, placed a significantly higher value on the commonly agreed upon characteristics of family practice. The students selecting family practice put considerable additional value on

the close personal relationship with patients, the ability to take care of children and families, the dealing with psychosocial problems, and the practicing of preventive medicine than did students who chose other careers. The early identification among pre-medical or medical students of those individuals who have strong beliefs or values that are shared with primary care practitioners and the reinforcement of these values in medical school may be worthwhile as attempts to strengthen interest in primary care are undertaken.

Regan-Smith and others suggest expanded use of medical school alumni to improve career counseling for medical students.<sup>6</sup> A mini-elective providing an opportunity for medical students to spend several days living and working with a practicing physician in the discipline of their choice early in their medical school curriculum was suggested as a possibility to find what a "real-life role model" actually does. While this article provides no data regarding the benefits of such a program, the suggestion is interesting. The authors also describe an expanded "career day," usually occurring on a weekend on the medical school campus, when first- and second-year medical students have the opportunity to meet with alumni to discuss opportunities in various disciplines. Sessions are designed to be interactive, encouraging questions and comments from both students and alumni.



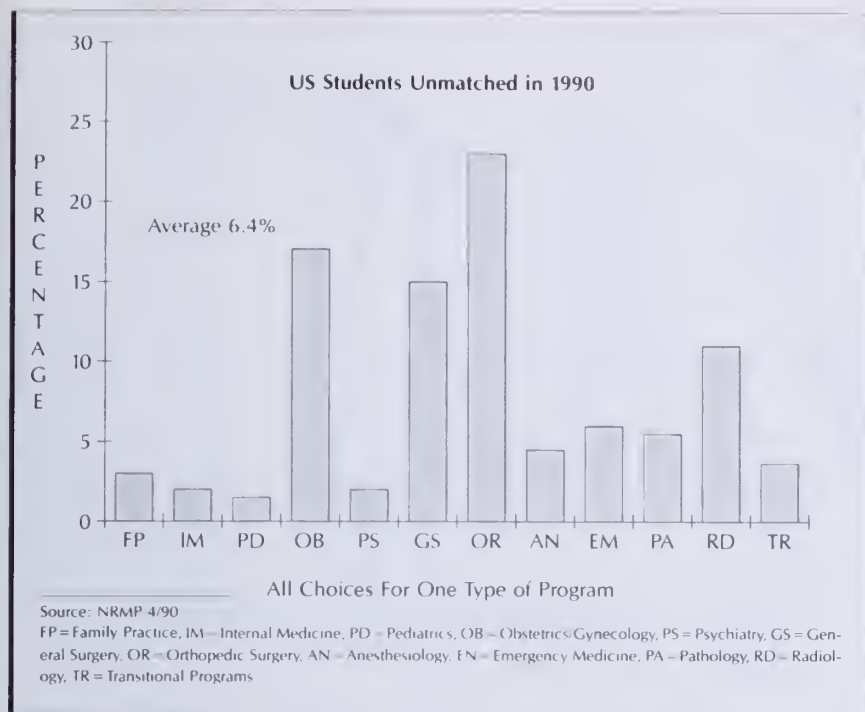


Figure 3.

Volunteer faculty, many of whom are University of Oklahoma College of Medicine alumni, have for many years played a key role in the recruitment of medical students and house officers and provide important educational experiences for both. The rural preceptorship program, which began in 1949, was originally proposed by alumni and received enthusiastic support from its very beginning. The inauguration of the preceptorship program at the University of Oklahoma School of Medicine and the dedication of the Oklahoma Medical Research Foundation were reported in the *New York Times* on Tuesday, July 5, 1949, as innovative programs. The preceptorship was initially a volunteer program for the 4th year class, with 72 of 75 members participating. It soon became part of the curriculum, and 19 preceptors were named by the university regents.<sup>7</sup> Currently, 28 preceptors serving in communities of 7500 or less provide a valuable one-month experience for all senior medical students. The program continues to provide unique insights into rural health care and has influenced the career choices of students for many years. The important contributions of volunteer faculty and other practicing physicians will continue and will be strengthened as the medical school initiates an extensive reexamination of its basic science and clinical curriculums through the Oklahoma Model of Medical Education for the 21st Century Project.

## Summary

The career choices of University of Oklahoma College of Medicine graduating seniors for the decade of the eighties are presented with some selected comparisons to national figures. Factors influencing medical students' career choices are briefly outlined, and some strategies for improving interest in primary care as a career are discussed.

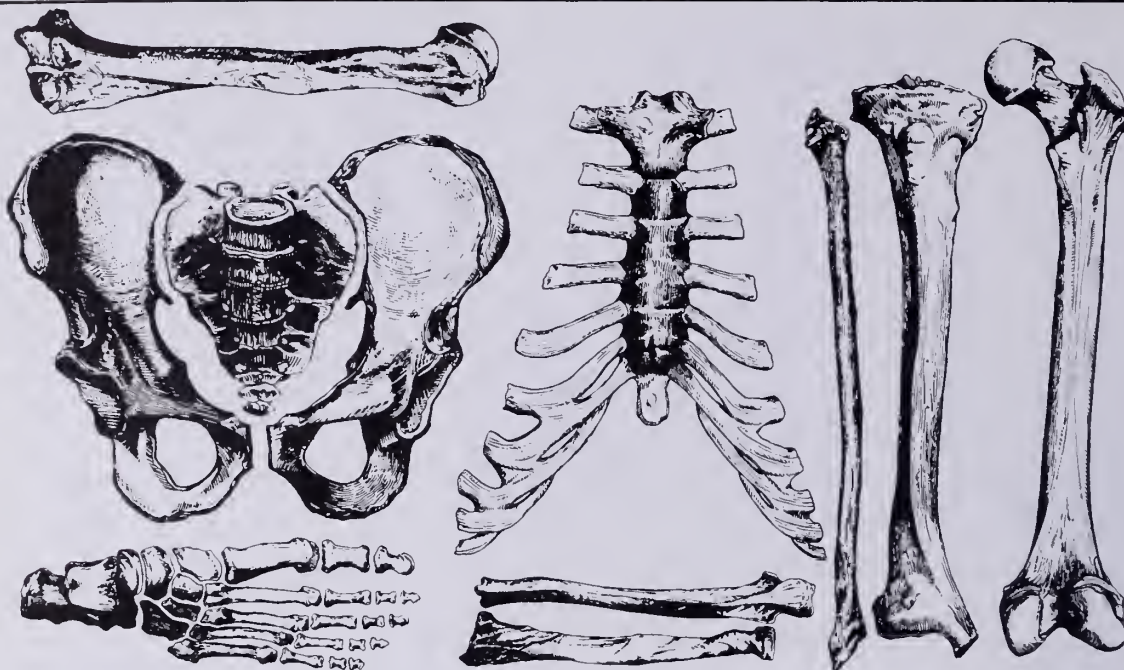
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## PROs

**Study shows implicit review of care to be effective criterion**

Implicit review of care — having practitioner opinion serve as the basis of review — is an effective measure of quality of care, according to a study of Medicare patients published in the October 17 *Journal of the American Medical Association*.

"This is good news for professional review organizations, which perform the bulk of quality reviews nationally and use implicit review to do so," writes author Lisa V. Rubenstein, MD, of the RAND Corporation, Santa Monica, Calif, and colleagues.

Care for five conditions, including congestive heart failure and hip fractures, was studied for 1,366 Medicare patients who were hospitalized in 1981-82 or 1985-86.

"The quality of medical care improved between 1981-1982 and 1985-1986 (from 25% receiving poor or very poor care to 12%), although more patients were judged to have been discharged too soon and in unstable condition (7% vs 4%)," the authors write. □

**AIDS precautions in hospitals costing more than estimated**

Increased precautions against infections taken by hospital personnel cost an estimated \$337 million in fiscal year 1989, according to a new study published in the October 24 *Journal of the American Medical Association*.

Authors Bradley N. Doebbeling, MD, MS, and Richard P. Wenzel, MD, MSc, both of the University of Iowa College of Medicine, found that costs for isolation materials per inpatient admission increased from \$13.70 to \$22.98; costs per outpatient visit increased from \$98 per visit to \$215 (per 1000 outpatient visits).

The study examined purchasing patterns for latex and vinyl gloves, protective gowns, disposable face masks, reusable pocket masks, protective eye wear, and disposable sharps containers at the University of Iowa Hospitals and Clinics for a five-year period. Two-thirds of the increase was due to the rise in rubber glove use, from 1.64 million pairs annually to 2.81 million pairs.

"If expenditures for isolation materials at our medical center are representative, previous estimates may have significantly underestimated costs nationwide," they write. □

*Missed diagnoses***Fetal alcohol syndrome often overlooked despite symptoms**

Physicians may not be making a diagnosis of fetal alcohol syndrome (FAS) although they are presented with all the signs and symptoms, concludes a study in October's *American Journal of Diseases of Children*.

Bertis B. Little, MA, PhD, of the Department of Obstetrics and Gynecology, University of Texas Southwestern Medical Center, Dallas, and colleagues studied the medical records of 40 infants born to 38 alcohol abusers and the frequency of characteristics associated with FAS (prenatal/postnatal growth deficiency, mental retardation, facial anomalies, be-

havioral disturbances). Six infants displayed FAS characteristics and 17 others had poor postnatal growth and development.

"The diagnosis of FAS did not appear in the medical records of any of these infants, despite the fact that the mothers' obstetric records included a history of alcohol abuse during pregnancy," write the authors. Better communication is needed between obstetric and pediatric staff to establish the diagnosis of FAS and to provide appropriate medical follow-up for these infants, they conclude. □

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George Leroy Goodman, MD	October 26

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## What Does a Positive Hepatitis C Test Result Mean?



*Recently, a screening test for hepatitis C was licensed and is now being done at all blood donation centers in Oklahoma. Blood donors who test positive are or soon will be receiving letters from blood centers, informing them of the test results. This article attempts to answer the question: "What does a positive hepatitis C test result really mean?"*

### BACKGROUND

After laboratory tests for hepatitis A and hepatitis B became available in the mid-1970s, it became evident that another type of infectious hepatitis existed that was caused by an unknown agent or agents. Termed non-A, non-B hepatitis (NANBH), it is today responsible for over 90% of post-transfusion hepatitis cases in the US, with an estimated 1% to 10% incidence after transfusion.<sup>1</sup> However, NANBH, also can be transmitted in the apparent absence of parenteral exposure. It is estimated that annually in the US, more than 150,000 cases of NANBH occur; half of these patients develop biochemical evidence of chronic liver disease, with approximately 15,000 cases leading to chronic active hepatitis or cirrhosis, as well as an unknown number of cases of hepatocellular carcinoma.<sup>2</sup>

Preliminary studies indicate that the hepatitis C virus (HCV) not only is the major cause of post-transfusion NANBH, but accounts for most community-acquired NANBH in the US.<sup>3,4</sup>

### THE VIRUS

The agent of hepatitis C is as yet unclassified, but appears to be smaller than 80 nm with a positive-strand RNA and a lipid envelope. It may be related to the toga- or flaviviruses.<sup>1,5</sup>

### ACUTE VS CHRONIC DISEASE

Recent studies have suggested that about 75% of acute hepatitis C infections are subclinical. Approximately 50% of all infections (including asymptomatic infections) may lead to chronic infections, and of these, approximately 20% lead to cirrhosis of the liver.<sup>1</sup> An association between hepatitis C and hepatocellular carcinoma also has been suggested in some studies.<sup>1</sup>

The incubation period is about 6 to 9 weeks, but may be as short as 2 weeks or as long as 6 months.<sup>1</sup>

There is some evidence that the longer the incubation period, the greater the risk of developing chronic hepatitis.<sup>1</sup>

### SEROLOGY

It is estimated that 0.6% of all blood donors in the US are seropositive for anti-HCV, and that more than 80% of true seropositive persons are infectious, with or without concomitant hepatitis.<sup>1</sup>

There is evidence that the time from exposure to seroconversion averages 3 to 5 months but may range from 16 days to as long as 9 months.<sup>4</sup> Thus there is a seronegative phase of acute infection, and long-term follow-up of patients with suspected NANBH is required when seronegative results are originally obtained. Patients may be infectious during the seronegative phase.

Loss of antibodies occurs in most patients who resolve their infections; conversely, patients with chronic hepatitis C have antibody persistence. It is estimated that 75% of persons with hepatitis C, but without chronic sequelae, will lose detectable antibodies in 10 years.<sup>6</sup>

### THE SCREENING TEST

This test, performed at blood donation centers, is an enzyme immunoassay for antibody to HCV and is expected to decrease the post-transfusion hepatitis rates to significantly below 1%. It is, however, considered a screening test, performed to allow rejection of potentially HCV-infectious blood. It *cannot* reliably identify carriers or act as a definitive diagnostic test for hepatitis C.

When screening blood, if the hepatitis C test is positive the first time, the donation center repeats the test two more times on the same blood sample. If repeatably positive, the blood is rejected and the donor informed that he or she tested positive for HCV.<sup>11</sup> However, based on results from clinical trials, 60% of repeatably reactive tests occur in blood donors who are most likely not infected.<sup>7</sup>

Confirmatory tests for hepatitis C are available in two forms, though neither is licensed at this time. One is the RIBA test which tests for two specific antibodies to HCV. The other is the antibody neutralizing test (ANT). Both tests are more specific than the anti-HCV screening test, and will reduce the number of noninfected persons who falsely test positive. The

## Hepatitis C (continued)

RIBA test is being done at the Oklahoma Blood Institute for research purposes, but may be available to private physicians on a case-by-case basis.

### TRANSMISSION

While hepatitis C virus has been identified as the major cause of transfusion-related hepatitis, it also has been implicated in approximately 50% to 70% of "community-acquired" NANBH. Some of these "community-acquired" infections may be related to intravenous drug use; in fact, IV drug users have been found to have prevalence rates of seropositivity ranging from 48% to 92%. But in the majority of cases, no risk factors have been identified.

Most transfusion-transmitted agents are also readily spread by the sexual route; however, the evidence thus far indicates that hepatitis C is not as easily spread by this route as other diseases such as hepatitis B. Nevertheless, the use of condoms during sexual intercourse should still be considered for those found to be positive for hepatitis C.

### TREATMENT

Since the anti-HCV screening test now being performed is not considered a diagnostic test, but *only* a screening test, a confirmatory test is important in the diagnosis of hepatitis C. Although there is no licensed confirmatory test available at this time, it is expected that the second generation RIBA test will be licensed by the middle of 1991.

It has been suggested that the primary physician, when confronted by an asymptomatic blood donor with a positive hepatitis C screening test, perform an alanine aminotransferase (ALT) level and a confirmatory test if available.<sup>7,11</sup> If these tests are normal, the positive hepatitis C test was probably a false positive and nothing further needs to be done. However, an elevated ALT or positive confirmatory test would indicate a need for the patient to be evaluated by a gastroenterologist. A liver biopsy may be indicated,<sup>7</sup> and if chronic liver disease is diagnosed, treatment with alfa interferon may be considered. Some authors have reported alfa interferon treatment as providing at least temporary beneficial responses in chronic hepatitis C.<sup>9,10</sup>

*(continued)*

## OKLAHOMA CARDIOVASCULAR SURGEONS

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The treatment for acute symptomatic hepatitis C is the same as for other types of hepatitis. However, chronic forms of hepatitis are common after hepatitis C infection; thus, a patient should have follow-up ALT and hepatitis C testing done 6 months later. If these tests remain abnormal, referral to a gastroenterologist is indicated.

It is unknown if the presence of anti-HCV antibody connotes protection, but if a known percutaneous exposure has occurred (for example, needle sharing with a person with hepatitis C) treatment with immune globulin (IG) has been suggested at a dose of 0.06 mg/kg.<sup>8</sup> The efficacy of this treatment in preventing infection is unknown. Hepatitis B immune globulin (HBIG) has a higher titer of anti-HCV than IG, but its efficacy in protecting against acute hepatitis C is also unknown. Q

—Patricia Quinlisk, MD, MPH  
Oklahoma State Department of Health

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## DEATHS

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### **George Leroy Goodman, MD 1898 - 1990**

Leroy Goodman, MD, a family practitioner in Yukon for more than 60 years, died October 26, 1990. A Life Member of the OSMA, Dr Goodman was born in Lexington, Indian Territory. He served in the US Army during World War I and was graduated from the University of Oklahoma School of Medicine in 1927. He retired from his practice in Yukon in December 1985. Dr Goodman was featured in the JOURNAL's Leaders in Medicine series in December 1989.

### **Milam Felix McKinney, MD 1904 - 1990**

OSMA Life Member Milam F. McKinney, MD, retired Oklahoma City general practitioner, died April 2, 1990. Dr McKinney was a 1930 graduate of the University of Oklahoma School of Medicine, where he later became assistant professor of medicine. During World War II he served on active duty with the US Navy, attaining the rank of Lieutenant Commander.

### **Bert E. Mulvey, MD 1906 - 1990**

Yukon native Bert E. Mulvey, MD, a retired Oklahoma City radiologist, died October 12, 1990. Dr Mulvey was graduated from the University of Oklahoma

School of Medicine in 1930. He earned the rank of Lieutenant Colonel during World War II, serving in the South Pacific with the 21st Evacuation Hospital. In addition to his private practice, Dr Mulvey was a clinical professor emeritus at his alma mater.

### **Carson Leroy Oglesbee, MD 1906 - 1990**

Muskogee general practitioner Carson L. Oglesbee, MD, died October 23. A Life Member of the OSMA, Dr Oglesbee was born in New Canton, Ill, and graduated from the University of Oklahoma School of Medicine in 1937. He practiced medicine in Muskogee for more than 50 years and during World War II served with the US Army Medical Corps in North Africa, Sicily, and Italy.

### **Howard Louis Puckett, MD 1903 - 1990**

Howard L. Puckett, MD, Stillwater surgeon, died September 1, 1990. Dr Puckett was born in Youngs Corner, Tenn, completed high school in Weleetka, Okla, and earned his medical degree at the University of Michigan Medical School in Ann Arbor. During World War II he served in the Pacific and later at the US Navy hospital in Norman; at the time of his discharge he held the rank of Commander. Q

## September editorial about coding generates reaction from readers

*To the Editor:* Thank you for your excellent editorial "Truth or Consequences Encoded" [Sept]. It was written with precision and insight, and is quite pertinent. For me the essence of the article is the sentence "It is all too easy to project blame on the government for these questionable practices . . ." Certainly government intrusion in medical practice provides another temptation to do the wrong thing and this is reinforced by the frustration and bitterness engendered by this intrusion. It is equally certain that resisting this temptation (to strike back?) is critical to ethical conduct.

You correctly state that physicians must occupy (perhaps reoccupy is more appropriate) a moral position. No other position allows us to deal from strength.

—Jess Hensley, MD  
Claremore

*To the Editor:* Your editorial in the September issue got my attention — again.

Your description of what has been going on in the last few years is accurate and I can't argue more strongly that they signify "a serious weakening of the moral integrity of the medical profession."

Our only hope is that there are enough physicians who will "reoccupy a moral position." If there aren't, the medical profession and the public have had it.

More power to you!

—John W. Records, MD  
Oklahoma City

*To the Editor:* I was happy to see your editorial of September 1990 in the *Journal of the Oklahoma State Medical Association*. I completely agree with your premise; however, I was quite concerned when some of my staff had come back from the Oklahoma State Medical Association coding course and the instructor had told them that a second procedure should be billed for a full fee. Historically, surgeons have billed the second procedure at half price. I had tried to con-

tact the woman that offered the course, but during that month she was ill and was unavailable. This had slipped my mind until your article appeared in the *JOURNAL*. I would think that the association must heal itself first in its own courses in order to stop the misrepresentation of coding practices among physicians. I would be interested in your comment in regard to my observation.

—Robert H. Nelson, MD  
Tulsa

*Editor's Note:* Dr Nelson is correct in asserting that the OSMA coding course instructor advised — with the concurrence of Medicare — that a simultaneous second procedure be billed to Medicare at a full fee. He is also quite right to note that the traditional practice has been to charge for the second procedure at half price. We personally believe that to be ethically correct practice, as the time of service to the patient is usually reduced by about that amount.

Regardless of how the surgeon submits the charges in this situation, Medicare will reimburse only a certain amount that bears no relation to the amount charged. Also, Medicare has a "relative value scale" that determines which is the primary operation and which is secondary, and the secondary is discounted or disallowed by an unpublished (and unobtainable) formula. In the end, Medicare pays a predetermined amount no matter how the bill is submitted.

Presumably, Medicare would like the second operation billed at full fee to relieve them of the administrative trouble of accounting for secondary operations in their average billed charges computer runs. Also, retaining the power to unilaterally decide which operation is primary and which is secondary may be part of the government motivation.

The long-term effects of these accounting peculiarities and ethical inveiglements on Medicine's relationship with patients and with commercial insurance companies will probably be quite negative. □

Reader comment is always welcome. Address Reaction Time letters to  
Ray V. McIntyre, MD, Editor-in-Chief, OSMA JOURNAL,  
601 Northwest Expressway, Oklahoma City, OK 73118.



## The Other Epidemic

By O. W. Dehart, MD, Vinita

*He wasn't the first child abuse victim I had cared for, but Oh, how I fervently wished he would be the last. Nineteen months old, beautiful as only one of that age can be, he had come to our emergency room in the arms of his mother. Almost thrown at the nurse that November night he was unresponsive, cold and still as death with the chin-lifting gasps of those last ragged agonal respirations before all effort ends. There were no pulses to feel, only the slow faint beat of a faltering heart heard through the earpieces of a stethoscope. Frantic, almost panic-stricken efforts to intubate, shouted instructions, part prayer and part oath — anything, any effort to bring back this child from his already beginning slide towards the outstretched arms of death. Veins probed for, not to be found; shock, cold and collapse cheating us of an avenue for help we so desperately wanted to give. His body temperature was too low to measure; we warmed him and tried anew while a saphenous vein was exposed and cannulated. No flutter of consciousness, no movement met our efforts; the only reward a return of the deeper respirations and a stronger heartbeat now supplying pulses we could feel.*

*Only then was it possible to take a critical look at his body with wounds in varying degrees of healing. Cigarette burns, scrapes, bruises, pinch marks and the signature of a strap all gave testimony to agony a young life had endured. His abdomen, now silent and tense, hid from us the injury inflicted by a barefooted stomping. The parent's explanations, all heard through ears almost deafened by anger, was that the child was sent out to play, was missed after dark, and when found had been pinned beneath an overturned stack of firewood.*

*Transferred to a tertiary care hospital, and after surgery to repair a duodenum severed by the stomped foot, he lived to be placed with foster parents. The father was sentenced to ten years in prison. His mother was never charged for contributory abuse although she had witnessed it all. Through several painful and lengthy courtroom proceedings, she regained custody from the foster parents with whom he had been placed. After less than a week of caring for this now severely disturbed and disabled child she voluntarily relin-*

*quished her parental rights and explained that she couldn't take care of him. When I last heard from him three years after that fateful night he was well and in school — that is, if such a child can ever be "Well."*

He wasn't my last child abuse patient, although he certainly was the worst. I suppose no Family Physician, Pediatrician, or Emergency Room doctor can never escape that terrible duty no matter where the practice location or what the town's size. Cases increase each year; in my state alone confirmed cases of neglect and abuse demonstrate an 11% annual increase. All states now have some form of mandatory reporting. Nationwide, approximately 2 million cases of neglect and abuse were reported in 1986. An estimated 5-10% are found to be malicious false reports and many others are found to be groundless after careful investigation. Unfortunately, a significant percentage of all reported cases are found to be painfully true; in 1986, 1,200 cases resulted in death for the victim. Some authorities report that as many as 2,000-5,000 cases of child abuse or neglect result in death each year. In every instance there is a defenseless child of some age, at some stage of development as a person, and in some period of growth. None of them, not one, is equipped to cope alone. Each requires an advocate, a protector, a mentor and a guide out of this maze through which society drags it. In most instances a physician fills one or several of these roles.

No physician is ever fully equipped for this most terrible of ordeals. Even the ones of minor severity are trying because of their nature. Nevertheless, there is a need, the overshadowing obligation, to choke back anger and swallow the bitter tears of frustration called forth by this blight on today's society. It is difficult to display the imperturbability Sir William Osler called "Aequanimitas"\* but if there are ever such occasions they are those such as this which I have described. It was more than I could manage. □

## CLASSIFIEDS

Classified ads are \$25 each up to 50 words, plus 50 cents for each additional word. A word is one or more characters bounded by spaces. Box numbers will be assigned upon request and add 6 words to the total. Ads will not be accepted on the telephone.

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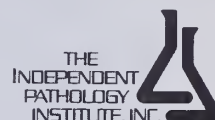
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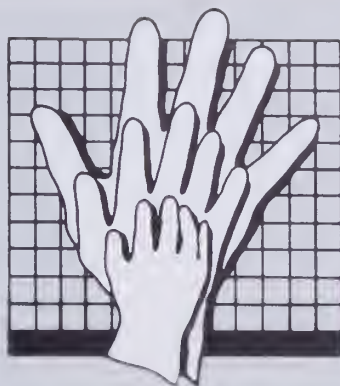
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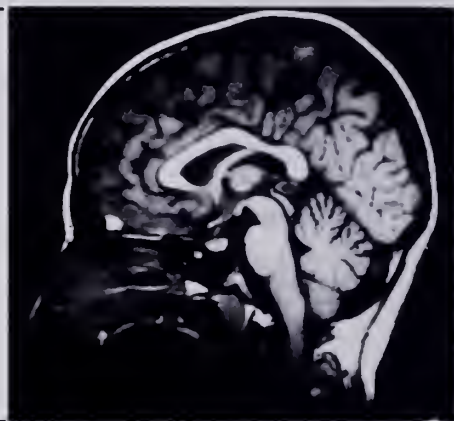
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#### Style

All manuscripts should adhere to the style adopted by the American Medical Association as illustrated in *JAMA* and detailed in the AMA's *Manual of Style*. An abstract of 150 words or less should accompany each paper and should state (1) the exact question considered, (2) the key points of methodology and success of execution, (3) the key findings, and (4) the conclusion(s) directly supported by these findings. Footnotes, bibliographies, and legends for illustrations should be typewritten, double-spaced, on separate sheets. References are to be listed in the order of their appearance in the article.

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Illustrations other than the author's will not be accepted for publication unless accompanied by written permission from the original source. Illustrations should be labeled with the author's name and must be numbered in the order in which they are referred to in the article. The quality of all illustrations must be in keeping with the quality of the magazine.

#### Reprints

Authors will receive reprint order forms from the Transcript Press, 222 East Eufaula, Norman, Oklahoma 73069, prior to publication of their articles. Other requests for reprints must be made to the Transcript Press within 30 days after publication.

#### News

Readers are encouraged to submit news items of interest to Oklahoma physicians. Where dates of meetings, etc, are important, please remember that each issue closes on the first day of the *preceding* month and reaches subscribers in the latter half of the month of publication.

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The Officers and Members  
of the  
OSMA Auxiliary  
extend to you and your loved ones  
our best wishes for  
a Joyous Holiday  
and  
a Happy New Year



■ **Mary Anne McCaffree, MD**, was one of several women to receive a 1990 Byliner Award from the Oklahoma City Professional Chapter of Women in Communications, Inc., at a November 4 brunch. The Byliner awards recognize several women each year for outstanding contributions in their chosen fields. Dr McCaffree, chief of neonatal service and director of the Neonatal Intensive Care Unit at Children's Hospital of Oklahoma, has been instrumental in the development of programs for state infants and mothers. She is also professor of pediatrics at the University of Oklahoma Health Sciences Center and co-director of the university's Infantile Apnea Diagnostic Center. In addition, she organized the Infant Breathing Disorders Center and has served on numerous medically related committees.

■ **The American Medical Association** learned in recent months that Allercrème Cosmetics Company, Novato, Calif, was wrongfully advertising that its products have a "Seal of Approval" from the AMA. The AMA discontinued its Seal of Approval program more than 35 years ago. It does not endorse or approve any commercial product. Any company that claims its products are approved by the AMA or carry the AMA's "Seal of Approval" is making a false statement and is misleading consumers. For further information, call Patti Davis, (312) 464-4843.

■ **Robert W. Block, MD, Tulsa**, professor and vice chairman of the University of Oklahoma College of Medicine—Tulsa (OUCMT), has been named president-elect of the Oklahoma Chapter of the American Academy of Pediatrics.

■ **PLICO Health** implemented a new statewide average fee for each CPT-4 code on October 1. The change was a result of a resolution passed during the Annual Meeting of the OSMA House of Delegates in May that instructed the Board of Directors of PLICO to develop a single zone physician reimbursement plan. The plan uses weighted averages and is budget neutral in order to avoid any premium increases.

■ **James H. Little, MD, Oklahoma City** ophthalmologist, recently won the 1990 World Skeet Doubles Championship, hosted by the National Skeet Shooting Association in Savannah, Ga. Held in October, the event drew some 1200 contestants from 16 countries. Dr Little survived several rounds of shoot-offs to win the 100 target event. In the 12-gauge event he

placed AAA 2nd, and with his wife, Margaret, won the husband/wife team 12-Gauge World Title. With partner Charlie Duncan, he also earned two-man team world titles in the .410, 12-gauge, and doubles events.

■ **Edward J. Tomsovic, MD, Tulsa**, dean at OUCMT and professor, Department of Pediatrics, was elected vice chairman and appointed to the executive committee of the Tulsa Chapter, American Red Cross at the organization's June meeting. He also was honored for chairing the Tissue Services Committee since its beginning five years ago.

■ **The 18th Annual Critical Care Medicine Course** will be held March 9-14, 1991, at the Sheraton Century Center Hotel in Oklahoma City. The course will be presented and sponsored by the Department of Medicine, College of Medicine, University of Oklahoma Health Sciences Center, and Department of Veterans Affairs Medical Center. It is directed toward physicians who wish to expand their knowledge and improve skills in the field of critical care medicine. Accreditation is granted by the AMA, American Academy of Family Physicians, American Osteopathic Association, and American College of Emergency Physicians. For further information contact D. Robert McCaffree, MD, Course Director, or Dora Lee Smith, Course Coordinator, at (405) 271-5904 or write to: Critical Care Medicine Course, University of Oklahoma Health Sciences Center, Room 3 SP 400, PO Box 26901, Oklahoma City, OK 73190.

■ **"Family Medicine—Ob/Gyn Specialties: Partners in Women's Health Care"** is the title of a CME course being presented February 2-7 at The Inn at Aspen, Aspen, Colo. Sponsored by the University of Oklahoma College of Medicine, the course is designed to meet the continuing education needs of family medicine and ob/gyn physicians and nurse practitioners who provide primary health care to women. For registration information, write to Magdalen De Bault, Associate Director, Continuing Medical Education, OU College of Medicine, PO Box 26901, 3SP511, Oklahoma City, OK 73190.

■ **L. Dwight Holden, MD, Tulsa**, clinical associate professor in the OUCMT Department of Psychiatry and Behavioral Sciences, by appointment of Governor Henry Bellmon, is now serving on the State Board of Mental Health and Substance Abuse. □





# VASOTEC

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**Contraindications:** VASOTEC® (Enalapril Maleate, MSD) is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor.

**Warnings:** Angioedema. Angioedema of the face, extremities, lips, tongue, glottis, and/or larynx has been reported in patients treated with ACE inhibitors, including VASOTEC. In such cases, VASOTEC should be promptly discontinued and the patient carefully observed until the swelling disappears. In instances where swelling has been confined to the face and lips, the condition has generally resolved without treatment, although antihistamines have been useful in relieving symptoms. Angioedema associated with laryngeal edema may be fatal. **Where there is involvement of the tongue, glottis, or larynx likely to cause airway obstruction, appropriate therapy, e.g., subcutaneous epinephrine solution 1:1000 (0.3 mL to 0.5 mL), should be promptly administered.** (See ADVERSE REACTIONS.)

**Hypotension:** Excessive hypotension is rare in uncomplicated hypertensive patients treated with VASOTEC alone. Patients with heart failure given VASOTEC commonly have some reduction in blood pressure, especially with the first dose, but discontinuation of therapy for continuing symptomatic hypotension usually is not necessary when dosing instructions are followed; caution should be observed when initiating therapy. (See DOSAGE AND ADMINISTRATION.) Patients at risk for excessive hypotension, sometimes associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death, include those with the following conditions or characteristics: heart failure, hypotension, high-dose diuretic therapy, recent intensive diuresis or increase in diuretic dose, renal dialysis, or severe volume and/or salt depletion of any etiology. It may be advisable to eliminate the diuretic (except in patients with heart failure), reduce the diuretic dose, or increase salt intake cautiously before initiating therapy with VASOTEC in patients at risk for excessive hypotension who are able to tolerate such adjustments. (See PRECAUTIONS, Drug Interactions and ADVERSE REACTIONS.) In patients at risk for excessive hypotension, therapy should be started under very close medical supervision and such patients should be followed closely for the first two weeks of treatment and whenever the dose of enalapril and/or diuretic is increased. Similar considerations may apply to patients with ischemic heart disease or cardiovascular disease in whom an excessive fall in blood pressure could result in a myocardial infarction or cerebrovascular accident. If excessive hypotension occurs, the patient should be placed in the supine position and, if necessary, receive an intravenous infusion of normal saline. A transient hypotensive response is not a contraindication to further doses of VASOTEC, which usually can be given without difficulty once the blood pressure has stabilized. If symptomatic hypotension develops, a dose reduction or discontinuation of VASOTEC or concomitant diuretic may be necessary.

**Neutropenia/Agranulocytosis:** Another ACE inhibitor, captopril, has been shown to cause agranulocytosis and bone marrow depression, rarely in uncomplicated patients but more frequently in patients with renal impairment, especially if they also have a collagen vascular disease. Available data from clinical trials of enalapril are insufficient to show that enalapril does not cause agranulocytosis at similar rates. Foreign marketing experience has revealed several cases of neutropenia or agranulocytosis in which a causal relationship to enalapril cannot be excluded. Periodic monitoring of white blood cell counts in patients with collagen vascular disease and renal disease should be considered.

**Precautions: General Impaired Renal Function:** As a consequence of inhibiting the renin-angiotensin-aldosterone system, changes in renal function may be anticipated in susceptible individuals. In patients with severe heart failure whose renal function may depend on the activity of the renin-angiotensin-aldosterone system, treatment with ACE inhibitors, including VASOTEC, may be associated with oliguria and/or progressive azotemia and rarely with acute renal failure and/or death.

In clinical studies in hypertensive patients with unilateral or bilateral renal artery stenosis, increases in blood urea nitrogen and serum creatinine were observed in 20% of patients. These increases were almost always reversible upon discontinuation of enalapril and/or diuretic therapy. In such patients, renal function should be monitored during the first few weeks of therapy.

Some patients with hypertension or heart failure with no apparent preexisting renal vascular disease have developed increases in blood urea and serum creatinine, usually minor and transient, especially when VASOTEC has been given concomitantly with a diuretic. This is more likely to occur in patients with preexisting renal impairment. Dosage reduction and/or discontinuation of the diuretic and/or VASOTEC may be required.

**Evaluation of patients with hypertension or heart failure should always include assessment of renal function.** (See DOSAGE AND ADMINISTRATION.)

**Hyperkalemia:** Elevated serum potassium (>5.7 mEq/L) was observed in approximately 1% of hypertensive patients in clinical trials. In most cases these were isolated values which resolved despite continued therapy. Hyperkalemia was a cause of discontinuation of therapy in 0.28% of hypertensive patients. In clinical trials in heart failure, hyperkalemia was observed in 3.8% of patients, but was not a cause for discontinuation.

Risk factors for the development of hyperkalemia include renal insufficiency, diabetes mellitus, and the concomitant use of potassium-sparing diuretics, potassium supplements, and/or potassium-containing salt substitutes, which should be used cautiously, if at all, with VASOTEC. (See Drug Interactions.)

**Surgery/Anesthesia:** In patients undergoing major surgery or during anesthesia with agents that produce hypotension, enalapril may block angiotensin II formation secondary to compensatory renin release. If hypotension occurs and is considered to be due to this mechanism, it can be corrected by volume expansion.

#### Information for Patients

**Angioedema:** Angioedema, including laryngeal edema, may occur especially following the first dose of enalapril. Patients should be so advised and told to report immediately any signs or symptoms suggesting angioedema (swelling of face, extremities, eyes, lips, tongue, difficulty in swallowing or breathing) and to take no more drug until they have consulted with the prescribing physician.

**Hypotension:** Patients should be cautioned to report lightheadedness, especially during the first few days of therapy. If actual syncope occurs, the patients should be told to discontinue the drug until they have consulted with the prescribing physician.

All patients should be cautioned that excessive perspiration and dehydration may lead to an excessive fall in blood pressure because of reduction in fluid volume. Other causes of volume depletion such as vomiting or diarrhea may also lead to a fall in blood pressure; patients should be advised to consult with the physician.

**Hyperkalemia:** Patients should be told not to use salt substitutes containing potassium without consulting their physician.

**Neutropenia:** Patients should be told to report promptly any indication of infection (e.g., sore throat, fever) which may be a sign of neutropenia.

**NOTE:** As with many other drugs, certain advice to patients being treated with enalapril is warranted. This information is intended to aid in the safe and effective use of this medication. It is not a disclosure of all possible adverse or intended effects.

#### Drug Interactions

**Hypotension: Patients on Diuretic Therapy:** Patients on diuretics and especially those in whom diuretic therapy was recently instituted may occasionally experience an excessive reduction of blood pressure after initiation of therapy with enalapril. The possibility of hypotensive effects with enalapril can be minimized by either discontinuing the diuretic or increasing the salt intake prior to initiation of treatment with enalapril. If it is necessary to continue the diuretic, provide close medical supervision after the initial dose for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and DOSAGE AND ADMINISTRATION.)

**Agents Causing Renin Release:** The antihypertensive effect of VASOTEC is augmented by antihypertensive agents that cause renin release (e.g., diuretics).

**Other Cardiovascular Agents:** VASOTEC has been used concomitantly with beta-adrenergic-blocking agents, methyldopa, nitrates, calcium-blocking agents, hydralazine, prazosin, and digoxin without evidence of clinically significant adverse interactions.

**Agents Increasing Serum Potassium:** VASOTEC attenuates potassium loss caused by thiazide-type diuretics. Potassium-sparing diuretics (e.g., spironolactone, triamterene, or amiloride), potassium supplements, or potassium-containing salt substitutes may lead to significant increases in serum potassium. Therefore, if concomitant use of these agents is indicated because of demonstrated hypokalemia, they should be used with caution and with frequent monitoring of serum potassium. Potassium-sparing agents should generally not be used in patients with heart failure receiving VASOTEC.

**Lithium:** Lithium toxicity has been reported in patients receiving lithium concomitantly with drugs which cause elimination of sodium, including ACE inhibitors. A few cases of lithium toxicity have been reported in patients receiving concomitant VASOTEC and lithium and were reversible upon discontinuation of both drugs. It is recommended that serum lithium levels be monitored frequently if enalapril is administered concomitantly with lithium.

**Pregnancy—Category C:** There was no fetotoxicity or teratogenicity in rats treated with up to 200 mg/kg/day of enalapril (333 times the maximum human dose). Fetotoxicity, expressed as a decrease in average fetal weight, occurred in rats given 1200 mg/kg/day of enalapril but did not occur when these animals were supplemented with saline. Enalapril was not teratogenic in rabbits. However, maternal and fetal toxicity occurred in some rabbits at doses of 1 mg/kg/day or more. Saline supplementation prevented the maternal and fetal toxicity seen at doses of 3 and 10 mg/kg/day, but not at 30 mg/kg/day (50 times the maximum human dose).

Radioactivity was found to cross the placenta following administration of labeled enalapril to pregnant hamsters.

There are no adequate and well-controlled studies of enalapril in pregnant women. However, data are available that show enalapril crosses the human placenta. Because the risk of fetal toxicity with the use of ACE inhibitors has not

been clearly defined, VASOTEC® (Enalapril Maleate, MSD) should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Postmarketing experience with all ACE inhibitors thus far suggests the following with regard to pregnancy outcome: Indifferent exposure limited to the first trimester of pregnancy has not been reported to affect fetal outcome adversely. Fetal exposure during the second and third trimesters of pregnancy has been associated with fetal and neonatal morbidity and mortality.

When ACE inhibitors are used during the later stages of pregnancy, there have been reports of hypotension and decreased renal perfusion in the newborn. Oligohydramnios in the mother has also been reported, presumably representing decreased renal function in the fetus. Infants exposed *in utero* to ACE inhibitors should be closely observed for hypotension, oliguria, and hyperkalemia. If oliguria occurs, attention should be directed toward support of blood pressure and renal perfusion with the administration of fluids and pressors as appropriate. Problems associated with prematurity such as patent ductus arteriosus have occurred in association with maternal use of ACE inhibitors, but it is not clear whether they are related to ACE inhibition, maternal hypotension, or the underlying prematurity.

**Nursing Mothers:** Milk in lactating rats contains radioactivity following administration of <sup>14</sup>C enalapril maleate. It is not known whether this drug is secreted in human milk. Because many drugs are secreted in human milk, caution should be exercised when VASOTEC is given to a nursing mother.

**Pediatric Use:** Safety and effectiveness in children have not been established.

**Adverse Reactions:** VASOTEC has been evaluated for safety in more than 10,000 patients, including over 1000 patients treated for one year or more. VASOTEC has been found to be generally well tolerated in controlled clinical trials involving 2987 patients.

**HYPERTENSION:** The most frequent clinical adverse experiences in controlled trials were: headache (5.2%), dizziness (4.3%), and fatigue (3%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in controlled clinical trials were: diarrhea (1.4%), nausea (1.4%), rash (1.4%), cough (1.3%), orthostatic effects (1.2%), and asthenia (1.1%).

**HEART FAILURE:** The most frequent clinical adverse experiences in both controlled and uncontrolled trials were: dizziness (7.9%), hypotension (6.7%), orthostatic effects (2.2%), syncope (2.2%), cough (2.2%), chest pain (2.1%), and diarrhea (2.1%).

Other adverse experiences occurring in greater than 1% of patients treated with VASOTEC in both controlled and uncontrolled clinical trials were: fatigue (1.8%), headache (1.8%), abdominal pain (1.6%), asthenia (1.6%), orthostatic hypotension (1.6%), vertigo (1.6%), angina pectoris (1.5%), nausea (1.3%), vomiting (1.3%), bronchitis (1.3%), dyspnea (1.3%), urinary tract infection (1.3%), rash (1.3%), and myocardial infarction (1.2%).

Other serious clinical adverse experiences occurring since the drug was marketed or adverse experiences occurring in 0.5% to 1% of patients with hypertension or heart failure in clinical trials in order of decreasing severity within each category:

**Cardiovascular:** Cardiac arrest, myocardial infarction or cerebrovascular accident, possibly secondary to excessive hypotension in high-risk patients (see WARNINGS, Hypotension); pulmonary embolism and infarction, pulmonary edema, rhythm disturbances, atrial fibrillation, palpitation.

**Digestive:** Ileus, pancreatitis, hepatitis (hepatocellular or cholestatic jaundice), melena, anorexia, dyspepsia, constipation, glossitis, stomatitis, dry mouth.

**Musculoskeletal:** Muscle cramps.

**Nervous/Psychiatric:** Depression, confusion, ataxia, somnolence, insomnia, nervousness, paresthesia.

**Urogenital:** Renal failure, oliguria, renal dysfunction (see PRECAUTIONS and DOSAGE AND ADMINISTRATION).

**Respiratory:** Bronchospasm, rhinorrhea, sore throat and hoarseness, asthma, upper respiratory infection.

**Skin:** Exfoliative dermatitis, toxic epidermal necrolysis, Stevens-Johnson syndrome, herpes zoster, erythema multiforme, urticaria, pruritus, alopecia, flushing, hyperhidrosis.

**Special Senses:** Blurred vision, taste alteration, anosmia, tinnitus, conjunctivitis, dry eyes, tearing.

A symptom complex has been reported which may include a positive ANA, an elevated erythrocyte sedimentation rate, arthralgias/arthritis, myalgias, fever, serositis, vasculitis, leukocytosis, eosinophilia, photosensitivity, rash, and other dermatologic manifestations.

**Angioedema:** Angioedema has been reported in patients receiving VASOTEC (0.2%). Angioedema associated with laryngeal edema may be fatal. If angioedema of the face, extremities, lips, tongue, glottis, and/or larynx occurs, treatment with VASOTEC should be discontinued and appropriate therapy instituted immediately. (See WARNINGS.)

**Hypotension:** In the hypertensive patients, hypotension occurred in 0.9% and syncope occurred in 0.5% of patients following the initial dose or during extended therapy. Hypotension or syncope was a cause for discontinuation of therapy in 0.1% of hypertensive patients. In heart failure patients, hypotension occurred in 6.7% and syncope occurred in 2.2% of patients. Hypotension or syncope was a cause for discontinuation of therapy in 1.9% of patients with heart failure. (See WARNINGS.)

#### Clinical Laboratory Test Findings

**Serum Electrolytes:** Hyperkalemia (see PRECAUTIONS), hyponatremia.

**Creatinine, Blood Urea Nitrogen:** In controlled clinical trials, minor increases in blood urea nitrogen and serum creatinine, reversible upon discontinuation of therapy, were observed in about 0.2% of patients with essential hypertension treated with VASOTEC alone. Increases are more likely to occur in patients receiving concomitant diuretics or in patients with renal artery stenosis (see PRECAUTIONS). In patients with heart failure who were also receiving diuretics with or without digitalis, increases in blood urea nitrogen or serum creatinine, usually reversible upon discontinuation of VASOTEC and/or other concomitant diuretic therapy, were observed in about 11% of patients. Increases in blood urea nitrogen or creatinine were a cause for discontinuation in 1.2% of patients.

**Hemoglobin and Hematocrit:** Small decreases in hemoglobin and hematocrit (mean decreases of approximately 0.3 g/dL and 1.0 vol %, respectively) occur frequently in either hypertension or heart failure patients treated with VASOTEC but are rarely of clinical importance unless another cause of anemia coexists. In clinical trials, less than 0.1% of patients discontinued therapy due to anemia.

**Other (Causal Relationship Unknown):** In marketing experience, rare cases of neutropenia, thrombocytopenia, and bone marrow depression have been reported. A few cases of hemolysis have been reported in patients with G6PD deficiency.

**Liver Function Tests:** Elevations of liver enzymes and/or serum bilirubin have occurred.

**Dosage and Administration: Hypertension:** In patients who are currently being treated with a diuretic, symptomatic hypotension occasionally may occur following the initial dose of VASOTEC. The diuretic should, if possible, be discontinued for two to three days before beginning therapy with VASOTEC to reduce the likelihood of hypotension. (See WARNINGS.) If the patient's blood pressure is not controlled with VASOTEC alone, diuretic therapy may be resumed. If the diuretic cannot be discontinued, an initial dose of 2.5 mg should be used under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, Drug Interactions.)

The recommended initial dose in patients not on diuretics is 5 mg once a day. Dosage should be adjusted according to blood pressure response. The usual dosage range is 10 to 40 mg per day administered as a single dose or in two divided doses. In some patients treated once daily, the antihypertensive effect may diminish toward the end of the dosing interval. In such patients, an increase in dosage or twice-daily administration should be considered if blood pressure is not controlled with VASOTEC alone, a diuretic may be added.

Concomitant administration of VASOTEC with potassium supplements, potassium salt substitutes, or potassium-sparing diuretics may lead to increases of serum potassium (see PRECAUTIONS).

**Dosage Adjustment in Hypertensive Patients with Renal Impairment:** The usual dose of enalapril is recommended for patients with a creatinine clearance > 30 mL/min (serum creatinine of up to approximately 3 mg/dL). For patients with creatinine clearance ≤ 30 mL/min (serum creatinine ≥ 3 mg/dL), the first dose is 2.5 mg once daily. The dosage may be titrated upward until blood pressure is controlled or to a maximum of 40 mg daily.

**Heart Failure:** VASOTEC is indicated as adjunctive therapy with diuretics and digitalis. The recommended starting dose is 2.5 mg once or twice daily. After the initial dose of VASOTEC, the patient should be observed under medical supervision for at least two hours and until blood pressure has stabilized for at least an additional hour. (See WARNINGS and PRECAUTIONS, Drug Interactions.) If possible, the dose of the diuretic should be reduced, which may diminish the likelihood of hypotension. The appearance of hypotension after the initial dose of VASOTEC does not preclude subsequent careful dose titration with the drug. Following effective management of the hypotension, the usual therapeutic dosage range for the treatment of heart failure is 5 to 20 mg daily given in two divided doses. The maximum daily dose is 40 mg. Once-daily dosing has been effective in a controlled study, but nearly all patients in this study were given 40 mg, the maximum recommended daily dose, and there has been much more experience with twice-daily dosing. In addition, in a placebo-controlled study which demonstrated reduced mortality in patients with severe heart failure (NYHA Class IV), patients were treated with 2.5 to 40 mg per day of VASOTEC, almost always administered in two divided doses. (See CLINICAL PHARMACOLOGY, Pharmacodynamics and Clinical Effects.) Dosage may be adjusted depending upon clinical or hemodynamic response. (See WARNINGS.)

**Dosage Adjustment in Patients with Heart Failure and Renal Impairment or Hyponatremia:** In patients with heart failure who have hypotension (serum sodium < 130 mEq/L) or with serum creatinine > 1.6 mg/dL, therapy should be initiated at 2.5 mg daily under close medical supervision. (See DOSAGE AND ADMINISTRATION, Heart Failure, WARNINGS, and PRECAUTIONS, Drug Interactions.) The dose may be increased to 2.5 mg b.i.d., then 5 mg b.i.d., and higher as needed, usually at intervals of four days or more, if at the time of dosage adjustment there is not excessive hypotension or significant deterioration of renal function. The maximum daily dose is 40 mg.

For more detailed information, consult your MSD Representative or see Prescribing Information, Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, PA 19386. J9V561R2(B20)

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## THERAPY THAT MAY BE AS SILENT AS HYPERTENSION ITSELF

VASOTEC is generally well tolerated and not characterized by certain undesirable effects associated with selected agents in other antihypertensive classes.

VASOTEC is contraindicated in patients who are hypersensitive to this product and in patients with a history of angioedema related to previous treatment with an ACE inhibitor. A diminished antihypertensive effect toward the end of the dosing interval can occur in some patients.

For a Brief Summary of Prescribing Information, please see the last page of this advertisement.

FOR MANY  
HYPERTENSIVE PATIENTS  
**ONCE-A-DAY**



**VASOTEC**  
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